

# MARINE RECORD

ESTABLISHED 1878.

VOL. XXV, No. 29

CLEVELAND -- JULY 17, 1902 -- CHICAGO.

\$2.00 Per Year. Single Copy 10c.

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To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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## LIQUID FUEL.

The Navy Department is continuing its most interesting investigations into fuel oil and Rear Admiral Melville has recently ordered Chief Engineer H. N. Stevens, now on duty as inspector of machinery at the Union Iron Works, San Francisco, to represent the Department at the trial of the passenger steamship Mariposa, which is provided with liquid fuel burning devices and does not use coal. The Mariposa is a vessel of 3,500 horse power, and has tanks for 6,500 barrels of crude oil instead of coal bunkers. It is confidently believed by a large majority of naval engineers that the time is not far distant when the navy will use liquid fuel and little or no coal. The great difficulty which the navy is now experiencing in obtaining coal as the result of the anthracite strikes has made it more than ever desirable that liquid fuel be used.

In continuation of the experiments which the Navy Department has instituted to ascertain the value of oil as fuel for naval purposes, Lieut. Ward P. Winchell, U. S. N., has been detached from the U. S. S. Boston, and ordered to San Francisco, where he will join the Oceanic Steamship Co.'s steamer Mariposa, for a cruise to the Society Islands and return. During this voyage, covering a distance of more than 7,000 miles, nothing but oil will be used as fuel, and it is believed by Rear Admiral George W. Melville, Chief of the Bureau of Steam Engineering of the Navy, that Lieutenant Winchell's observations of the results obtained on the Mariposa will be of great help in the experimental work with liquid fuel in Washington.

Her plant consists of an automatic feeder which conveys small streams of oil into the fire-box where the space usually occupied by the ordinary grate bars is filled with loosely piled fire brick. As the oil streams downward it is struck by a spray of compressed air or steam and distributed over the bricks which quickly become incandescent, thus assuring almost perfect combustion. This plant was inspected on July 4 by Comdr. Holland N. Stevenson, Chief Engineer, U. S. N., who was greatly impressed with its simplicity and effectiveness and who, like Admiral Melville, is hopeful of highly valuable results from Lieut. Winchell's long cruise in the Mariposa.

## LAKE LEVELS.

The gauge records of the United States Lake Survey show the following mean stages of water for June, above mean sea-level: Lake Superior, 602.08 feet; Lake Huron and Michigan, 580.06 feet; and Lake Erie, 572.21 feet. These stages show Lake Superior to have been 0.03 foot higher than during same month last year, and 0.06 foot lower than in June, 1895. Lakes Huron and Michigan were 0.42 foot lower than during same month last year, and 0.29 foot higher than in June, 1895; Lake Erie was 0.40 foot higher than during same month last year, and 0.55 foot higher than in June, 1895.

## SUBMARINES OF THE WORLD'S NAVIES.

A return has been made of the submarine boats building for various naval countries. France tops the list with 14 vessels in service—two at Toulon, three at Cherbourg, as well as five submersible boats, and four at Rochefort; while twenty more are being built in addition to thirteen submersible boats and three experimental submarines of new type. Thus, in two years, France will possess 50 submarines or submersible boats. Great Britain comes next with six boats in progress, and three projected; and in connection with these, arrangements have been made whereby inventions in relation to them will not be disclosed in patent specifications, although they will still be protected. The United States have six boats; Norway, Germany and Russia have each ordered a Holland boat for experiments; Sweden is studying the qualities of one by their naval officer, M. Enroth; Italy possesses three, with which trials have been in progress for two years; Spain, Portugal, and Brazil have boats in the experimental stage, designed by officers of the respective countries; and Russia has five boats under construction at Cronstadt.

## WIRELESS TELEGRAPHY.

Mr. Marconi last month gave a lecture before a crowded audience at the Royal Institution, London, on "The Progress of Electric Space Telegraphy." He said that it might be possible by means of his system to telegraph messages at a speed of several hundred words a minute. At present by means of this detector it was possible to read thirty words a minute. The Canadian Government, on initiation of Sir Wilfrid Laurier, had not only encouraged but welcomed the establishment of a station in Nova Scotia, and had granted a subsidy of £16,000 for the erection of the trans-Atlantic station, the object of which was to communicate with England. Another station for the same purpose was being erected on the United States coast. Experiments from vessels had shown that messages were received from upwards of 1551 miles from Cornwall, while indications were received as far as 2,099 miles. A result of great scientific interest was that at a distance of 700 miles the signals transmitted during the day failed entirely, while those sent at night remained quite strong up to 1551 miles and the indications at 2099 miles. He did not, however, think that the effect of daylight would be to confine the work of trans-Atlantic telegraphing to the hours of darkness. Sufficient energy could be used during the day time. He felt that the day was rapidly approaching when ships would be enabled to be put into communication with the shore across the ocean, and when those aboard ship would no longer be isolated in their information as to what was going on in the world. And what was of great importance was that the system would be found applicable for such great distances as divided Great Britain from her colonies and America.

## UNITED STATES ENTERPRISES IN ONTARIO.

The already large list of American concerns having branch establishments in Canada is constantly receiving additions. The American Wire and Steel Co. has been incorporated in this country under the title of the Canadian Wire and Steel Co.; it has arranged for temporary factory buildings at Hamilton, Ontario, and is now running three machines with a capacity of 35 tons daily.

H. R. Lamb, of Michigan, has just established a factory for woven-wire fencing at London, Ontario. The Port Huron Engine and Thresher Co., of Michigan, has located a branch factory at Sarina, Ontario, and will employ \$500,000 capital in the Canadian and export trade. The plant of the John Abell Threshing Machine and Agricultural Works, Toronto, has been purchased by the Advance Thresher Works, of Battle Creek, Mich. This establishment is said to be the largest of the kind in the Dominion, and has for years supplied many of the machines for Manitoba and the great wheat region of the Canadian northwest. The object of Americans in operating these factories is to avoid the duty, which is so high as to allow little profit on machinery when sent across the boundary line.

## THE EXPORT TRADE.

It is now practicable to determine the effect of the drouth of 1901 upon the export trade of 1902. The Treasury Bureau of Statistics has just completed its preliminary figures on the exports of breadstuffs and provisions and, as they show about 97 per cent. of the total exports, a reasonably accurate measurement of the exportation of articles affected by the drouth of last year can now be made.

The direct and most marked reduction, of course, is in corn, which was most largely affected by the drouth of 1901. The exportation of corn at the principal ports, shown by the preliminary report of the Bureau of Statistics, amounts to 26 million bushels in the fiscal year ending June 30, 1902, against 176 millions at the same ports in the preceding year, the value for 1902 being 16 million dollars against 82 millions in the preceding year, a reduction of 66 million dollars; the complete figures will probably show the total exports at about 27 million bushels against 181 millions in the preceding year.

One other item of exports which will show a marked reduction during the last year is iron and steel. While the total figures of exports have not been received by the Bureau of Statistics, sufficient have been received to justify an estimate that the reduction in the exports of iron and steel will amount, in round terms, to 20 million dollars, due in a large measure to increase in the home demand upon our manufacturers, and in part to the decreased demand abroad. The principal reduction in the export trade of the year will then stand: Corn and corn meal and oats and oatmeal, 75 million dollars, due chiefly to the drouth of 1901; beef and beef cattle, 11 millions, due to increased home demand and shortage in material for feed of stock; cattle, 24 millions, due to reduction in prices; manufactures of iron and steel, 20 millions, due to increased home demand and decreased foreign demand.

Thus in the four items of exports—corn and oats, beef and beef cattle, raw cotton, and manufactures of iron and steel, the reduction for the fiscal year will amount to about 130 million dollars, while the total reduction in all exports is but about 90 million dollars, thus indicating that the general exports, aside from these four classes, in which conditions were abnormal, will show a satisfactory growth when the complete figures of the fiscal year are presented.

## A SHIPYARD CHANGES HANDS.

Messrs. Burger & Burger, who operated a shipbuilding yard and dry-dock at Manitowoc, Wis., announce the sale of the plant to a Chicago syndicate, composed of Capt. John Prindiville, Ellis Grunnell, and Charles West. The transfer of the yard to the new owners will be made as soon as some of the minor details of the transaction are completed, and the consideration is said to be \$130,000. The yard will hereafter be operated under the name of Manitowoc Drydock Co. Improvements will be added so that steel ships can be built and repaired.

It was reported some months ago that the Ship Owners' Drydock Co., of Chicago, was looking over the field at Manitowoc and Sheboygan with a view of establishing a drydock, and it is believed that the company is interested in the purchase of the Burger yard. Ellis Grunnell was formerly general superintendent of the Chicago Ship Building Co., and Charles West was a naval architect in the employ of the same company.

Capt. John Prindiville is one of the pioneer vessel agents of Chicago.

Manitowoc has always been regarded as a natural center of ship building and repairing on Lake Michigan and two or three decades ago led in this regard. Since the days of steel construction, however, the industry has become less important although the amount of work turned out annually at the Burger yards was quite large and the employment given to skilled labor very beneficial to the Lake Michigan fleet and "lame ducks" as they came along. It is quite probable that the wooden building and repairing will go on as at present with no change in the force or details of the management; the steel construction, when completed, being altogether an additional industry.





## DETROIT.

The light-house tender Marigold left this port on Tuesday, with Capt. Green, U. S. N., inspector of light-houses, for the eleventh district, who will make an inspection of aids to navigation between Detroit and Duluth.

The steel built cargo steamer Thomas Adams, 3,784 gross and 3,187 net tons, hailing from Toledo, O., has been granted official numbers this week by the Bureau of Navigation, Treasury Department, Washington, D. C.

The side-wheel passenger steamer City of the Straits poked her nose into the mud in the channel at Toledo on July 4 and remained there until the 10th, when she was floated again. The hull was not damaged but the delay has proved to be a very expensive one.

Admiral Bowles, chief constructor of the United States Navy, has detailed Naval Constructor H. G. Smith and Draftsman H. S. Eper to inspect and report upon the ventilating system of the steamer Western States. They will arrive here Wednesday or Thursday.

Capt. W. E. Comer, of this city, master of the Darius Cole, chartered for the season to run out of Buffalo to Crystal Beach, had some trouble with the company chartering the boat and quit. He has been succeeded by Capt. Hugh Phillips, also of this city, who was formerly on the Wyandotte.

The Adams Transportation Co., of Detroit, has filed its articles of incorporation with the county clerk; capital stock \$115,000, fully paid in; stockholders, Thomas Adams, Detroit, 575 shares; John I. Adams, Detroit, 20 shares; John Craig, Toledo, 852 shares; Geo. L. Craig, Toledo, 427 shares; John F. Craig, Toledo, 426 shares.

The following meteorological observations are furnished by the office of the United States Weather Bureau, Detroit, for the week ending July 15, 1902: Prevailing wind directions for the week, southwest; highest velocity, 38 miles from the southwest on the 14th; mean temperature for the week, 72°; highest temperature, 86° on the 13th; lowest, 59° on the 10th.

General Manager Antonio C. Pessanno, of the Great Lakes Engineering Co., was formerly vice president and general manager of the George H. Cresson Co., of Philadelphia, Pa., and is in receipt of a copy of very flattering resolutions passed by a meeting of the 20 or more foremen of the Cresson Co., handsomely engrossed and beautifully framed, expressing regret at his leaving that company.

Records of the custom house show that Detroit has a larger fleet of passenger boats than any other lake port. Exclusive of tugs, launches and vessels registered here, but running out of other ports, there are twenty-eight steamers, with a total capacity of 41,800 persons, an average of nearly 1,500 each. There are sixteen carrying one thousand and upwards, and ten carrying two thousand and upwards.

W. C. Barr, of Sault Ste. Marie, Mich., who is prominently identified with the F. H. Clergue interests at the "Soo," announces that one of the Clergue projects is to build a large drydock at the "Soo." It will be what is known as a gravity dock, being so located between the levels of Lake Superior and the power canal, that no pumping will be necessary in emptying the dock. Mr. Barr said the dock would be about 500 feet long, and that work on it would be begun this fall or next spring.

The breaking of the machinery of the new steamer Eastern States will be more serious than anticipated. The big high pressure cylinder was badly wrecked in the accident on Lake Erie last Friday night. There is a narrow strip broken off the cylinder proper for half its circumference and a chip 9x12 inches was broken out of the lower part of the cylinder. Another narrow strip was chipped off the cylinder head about a third of its circumference. The piston rings were broken in five pieces. The Detroit Ship Building Co. will try to make repairs by burning in pieces in place of the chips broken out. This will take some time and the steamer will lose the best part of her first season.

Professor Durand, of Cornell University, who is in charge of the engineering work connected with the establishment of the new St. Clair River Shipyard (Columbia Iron Works), says that the first keel would be put down at once if material could be secured. It is expected that stock for the first vessel, the Boland-Prindiville lumber steamer, will be delivered shortly. The new company has given up, for the present at least, the construction of a grain carrier with hopper bottom, which was proposed

some time ago. They find sufficient demand for vessels to delay building on their own account, and would undoubtedly have quite a busy establishment on the St. Clair river by this time but for the delays which they are encountering on the score of material.

Detroit is to have the distinction of sending the first dredging machinery to the Philippine Islands since they became the property of the United States. The first shipment was made this week from the plant of the Great Lakes Engineering Co., and consisted of a dredging pump and engine and complete outfit of machinery. The consignment weighed about 100 tons and took four freight cars to carry it. This firm has just completed a record making job for the government on the United States Engineer's dredge, Maumee, which broke its winding drum at Toledo over a week ago. The flange of the drum cracked and was discovered just in time to prevent a bad smash-up. Toledo concerns would not promise the work in less than a week, and the Maumee was brought to Detroit. Two and three-quarter days after the contract was closed the designs were drawn, patterns made, and the new drum cast and placed in the lathe of the machine shop. The pieces weigh four tons.

The wooden steamer Kittie M. Forbes, which burned to the water's edge about six weeks ago, and was beached on the Canadian side of the St. Clair river, opposite the Star Island house, has been raised by Capt. H. W. Baker, of the wrecker T. W. Snook. The wreckers commenced working on the Forbes June 17, with four divers and eighteen men. She was burned so badly that it was found impossible to build a cofferdam around the stern, so they built a bulkhead about eight feet aft of the engines. The water at this point was twenty-eight feet deep. Then they built a cofferdam from this bulkhead around each side to the stern. The divers then placed a canvas jacket outside of the cofferdam, and after the jacket was in place the two centrifugal pumps, with a capacity of 20,000 gallons a minute, were started. The steamer from the time the pumps started rose in just two hours and twenty minutes. The big pumps were set on timbers on top of the cofferdam, and had to lift the water twenty-six feet. Now her syphon keeps her clear. Capt. Baker is the first to try using the cofferdam in deep water on the lakes. The divers working under him were John Lehigh and Jordan Tufflemeire, of Detroit; Charley Comphrey, of Port Huron; and John Cuspers, of Algonac. Tufflemeire is now at the middle channel diving for the Henkel boy who was drowned July 4. He has used over 100 pounds of dynamite trying to raise the body, without success.

## CHICAGO.

The Shipowners' Drydock Co. has been awarded the contract for building the steel hull and equipment for a fire boat for the city of Milwaukee. The price named for the work was \$48,995. The contract calls for the completion of the boat in five months and a forfeiture of \$250 for each day's delay beyond that time.

On entering Chicago river on Monday with 2,300 tons of iron ore for the north rolling mills of the Illinois Steel Co., the whaleback steamer A. D. Thompson ran foul of the protection to Rush street bridge. Several heavy timbers were broken by the steamer. The accident was caused by the steamer's captain misjudging the strength of the current in the river. The whaleback which was the first freight steamer of its type to enter the Chicago river this season, escaped damage.

Fifty thousand longshore workers of the Great Lakes, comprising over a third of the total membership of the International Longshoremen's Association, will be represented at the annual convention of the association to be held here this week at McCoy's Hotel. At this year's convention the most important work scheduled is to form an amalgamation between the International Longshoremen's Association and the National Union of Dock Laborers in Great Britain and Ireland, which has over 100,000 members.

While proceeding up the south branch on Thursday last with a cargo of lumber, the steamer John Spry was dismantled by a collision with the jackknife bridge at Van Buren street, and the crew had narrow escapes from being injured by the falling spars. The west half of the bridge has been out of service because of disabled machinery, and boats have been compelled to go through the narrow channel formed by the raising of the east half. The captain of the Spry was unaware of this, and before he knew his danger was sucked under the broken half by the current. The pilot house, foremast, smokestack and whistle were carried away, and the life-boats and top of the cabin crushed in.

In regard to the license cancelling question the only case that has been decided is that of Engineer Burns in the Chicago river, who left his boat without drawing the fires from under the boilers. His license was revoked, or, what is the same, he was refused a new examination or license, the old one having expired while the case was pending. If the rules governing the issuance of licenses are rigidly enforced Engineer Burns, of Chicago, will not be able to obtain another license for five years. In the case of Captain Benton, at Marquette, Mich., he will not

be able to make a successful application for a license until the limitations of the license he held have been reached. Capt. Benton, or his lodge, ought to take this matter up and successfully protest against arbitrary rulings taking the bread out of his mouth and that of others depending on his labors.

At some of the docks the longshoremen refuse to handle freight which is to be transferred to the railroads. Notice was served on some of the transportation companies that July 23 the new longshoremen's union would demand 30 cents per hour, with an additional charge of 15 cents per hour for work done after 10 p. m., and double time for working on Sunday. The men are now getting 25 cents on nearly all docks. If the new union insists on double time for Sunday work there is certain to be a strike of longshoremen, for it was the unanimous sentiment of steamboat managers that they would not pay extra for night and Sunday work, although they might advance to 30 cents per hour straight through.

Charles C. West, a member of the company which has purchased the Burger & Burger shipyard, at Manitowoc, wants it understood that the new concern is not in any combination or trust, the corporation will maintain two docks, one at Manitowoc and the other at Chicago. That at Manitowoc will be divided into two sections, the wood and steel yards. George Burger will act as manager of the former, while Mr. West will superintend the steel yard. Before fall over \$20,000 worth of steel working tools will be put in place to accommodate steel tonnage repairs, and the rest of the plant will be installed next spring. The officers of the new company are: President, Elias Grinnell; vice president, T. J. Prindiville; secretary and treasurer, S. E. Greer; general manager, Charles C. West. The president is said to be one of the most experienced steel shipbuilders on the lakes.

The trial of the twenty-five striking employes of the Great Lakes Co., for conspiracy to hinder commerce, before the United States steamboat inspectors, came to a sudden end last week by the withdrawal of the charges. When the local inspectors ruled that they could not compel witnesses to testify when they said their evidence would be in violation of the obligations of their union, Charles E. Kremer, Esq., who had represented the tug trust in the proceedings, formally withdrew the charges. He said that the trust had relied upon the evidence of the members of the union to sustain the charge of a conspiracy, and if the trust was not to be permitted to bring out this testimony it would not continue any of the cases. The inspectors insisted that they could not compel a man to violate an oath of his union in forcing him to answer questions. Mr. Kremer then withdrew from the rooms with the statement that the trust would not be further represented in the proceedings. The inspectors allowed all the cases to drop except the one against Capt. Charles Roach, who had been on trial for two weeks. This case they will decide on the evidence already brought out.

## DULUTH-SUPERIOR.

Chief Engineer Coon, of the steamer Ed. Smith died at Marquette Tuesday.

The Independent Tug Co., controlled by the striking licensed tugmen, had taken over the two tugs, Dana and Crosby, they were doing good work and making excellent wages, but the owners of the tugs asked for their boats to be returned and this was done. The men are now at Houghton and other Lake Superior points, looking up available craft for harbor towing, so as to resume their work in this harbor.

Mr. Wolvin has sent out the following notice: Mr. Edwin S. Mills, having resigned his position as assistant general manager of the Pittsburg Steamship Co., and removed from Cleveland to New York to accept the position of assistant to First Vice President James Gayley, of the United States Steel Corporation, Mr. A. F. Harvey has been appointed assistant general manager of the Pittsburg Steamship Co., with headquarters at Duluth. Mr. E. C. Collins, formerly assistant to Mr. Mills, has been appointed general agent of the Pittsburg Steamship Co., with headquarters at Cleveland.

Capt. D. D. Gaillard, United States Engineer, and F. L. Dever and J. H. Darling, assistants, have made an examination of the St. Louis river above Fond du Lac, and a report will be submitted to Washington as to the necessity of deepening the channel there. Congressman Morris urged this improvement before Congress, and in the last river and harbor bill it was provided that a preliminary inspection be made by the United States engineer in charge of this district. The distance of the channel that needs improvement is about half a mile. Above Fond du Lac is a stone quarry, where considerable lime stone is gotten out, but the shallow water makes shipping difficult. The bill asks for an eight foot channel, the same as below Fond du Lac. This, it is said, would be wide enough for any use that it may be put to for years to come, but it is only four and a half feet deep at present. The carrying out of the proposed improvement hinges almost entirely on Capt. Gaillard's recommendations. If he feels that such an improvement is necessary, he will so report to the chief engineer at Washington, explaining the conditions here. What those recommendations will be Capt. Gaillard is not at liberty to divulge.



## BUFFALO.

Capt. Pierre Boville has been appointed master of the steamer Tacoma.

The steam barge Alexander Maitland, 3,351 gross and 2,998 net tons, built at and hailing from this port, has been granted an official number this week by the Bureau of Navigation, Treasury Department, Washington, D. C.

George S. Potter, Esq., attorney for the tugboatmen in the inquiry before the local inspectors of steamboats regarding a cancellation of their licenses, wherein his contention was supported by the government officers, is being congratulated on all sides on his gallant victory for the boys.

Capt. Campau, of the Crystal, was arrested for violating the harbor rules. It is charged that Capt. Campau was running his boat at a much higher speed than the city ordinance allows. All the pleasure boats, it is said, are run at too high a rate of speed in the harbor and the move is the beginning of an effort to stop the practice. Capt. Campau was released on bail.

The charges of blowing cross-signals, preferred by the captain of the steamer Niagara against Capt. John Golden, a non-union tugman employed on the tug Danforth by the Great Lakes Towing Co., were dismissed by the steamboat inspectors on Saturday. The trial was another chapter of the war between the tug trust and the tugmen's union.

The Cleveland & Buffalo Transit Co. announce that the special daylight trips advertised to leave Cleveland at 8:00 a. m. and Buffalo at 9:00 a. m. Saturdays during July and August, are cancelled. Until December 1st, steamers will leave Cleveland daily at 8:00 p. m., Central Standard time; Buffalo, daily, at 9:00 p. m., Eastern Standard time.

The Illustrated Buffalo Express is sending out a large and beautiful engraving entitled "Buffalo's Harbor," showing the entrance to Buffalo river and the principal types of steam craft now doing business at that port. The picture, which is worth framing, was issued as a supplement to the Buffalo Express of June 15.

The Canadian Government survey boat, Lord Stanley, from Montreal, reached here Tuesday, on a tour of inspection of the breakwaters, buoys, and beacons along the Canadian shore as far as Port Arthur. The trip will consume a month and stops will be made at Cleveland, Detroit, Chicago, Milwaukee and Duluth, to study the methods of the States. Captain James Howden, master of the Stanley, is superintendent of dredging of the Dominion. Minister Israel Tarte, with a party of friends, is the guest of the boat.

The organization of a new elevator combine formed by the seceders from the Western Elevating Association, has been perfected, and the following officers elected: President, Spencer Clinton; secretary, Howard J. Smith. It is said that Leonard Dodge will be elected vice president. Secretary Smith is at present treasurer of the Western Elevating Association, but will resign and take his new office as soon as the new "combine" is ready for business. The new pool will be known as the Elevator Owners' Association, and every effort is now being made to get business away from the old association. There is little grain coming forward, and both sides admit that the situation is most uncertain.

Harvey L. Brown, one of the attorneys for the Great Lakes Towing Co., is not slow in expressing his surprise at the decision of the local steamboat inspectors on the evidence submitted in the tug strike case. He states that the case will be carried to a higher tribunal. It has been understood ever since the case was begun that the verdict of the Buffalo inspectors would not be final, no matter which side won. Had the decision been favorable to the Great Lakes Towing Co., the tugmen would have appealed to the supervising inspector. It is said that the trust cannot do this, but will be obliged to carry their appeal to Washington, either to Chief Inspector Dumont or to the Secretary of the Treasury. It has been positively stated ever since the complaint was entered that it was the intention of the tug owners' syndicate to settle the point for all time, and such, it is stated, is still their determination.

The Detroit & Buffalo Steamship Co. cut rates this week between this city and Detroit, making the charge each way only \$2.50, or \$5.00 for the round trip. In addition to this reduction, there is announced a week end excursion rate of \$3.00 the round trip, going either way on Saturday and returning the next day. This cut is to meet the week-end rate of \$4.00 on the railways between this city and Detroit, and means the inauguration of permanent cheap rates to the west, not only to Detroit and other Michigan points, but to Chicago as well. General Passenger Agent Schantz, of the D. & B. Line, said that the step taken by his company was the result of a determination to hold the great volume of business that has come to the D. & B. Line with its very beginning of business. "We have two of the finest boats ever seen on the inland waters of any country in the world, and our low rates with the superb accommodations have brought us a splendid business from the first of the season. We intend to hold our patronage."

## CLEVELAND.

Ashtabula reports a co-operative tug company as being formed and having plenty of work.

A meeting of the members of the executive board of the American Ship Building Co. was held on Wednesday, but only routine business was transacted.

General Manager Newman, of the Cleveland & Buffalo Transit Co., announces that the special daylight trips advertised to leave Cleveland at 8 a. m. Saturdays, during July and August, have been canceled.

Capt. Samuel Gould, of this city, who has during the past few years sailed vessels of the Bradley and Corrigan fleets, has been appointed shipping master at Buffalo in place of Capt. Nesbitt, who has been engaged by the Great Lakes Towing Co.

The Bureau of Navigation, Treasury Department, has granted official numbers this week to the steel built cargo steamer Harold B. Nye, 4310 tons gross, and 3365 tons net, built at the Lorain yards of the American Ship Building Co., and hailing from this port.

Capt. Daniel Hodgson, who has been on the retired list of the revenue cutter service, has been restored to active duty by the Secretary of the Treasury. He has been assigned as inspector of the tenth and eleventh life-saving districts, comprising Lakes Ontario, Erie, Huron and Superior. His appointment dates from July 1.

When the report came of the change in the officials of the Pittsburgh Steamship Co., it was said that the offices of Marine Superintendent W. W. Smith and of Chief Engineer Joseph Hayes would be moved to Duluth. This report, however, is denied by the officials of the company and Cleveland will continue to hold the operating offices as it has done.

A naval recruiting station will be opened in room No. 83 in the postoffice building next Monday. Recruits are wanted for all branches of the service. Those accepted will be sent to a training ship at the Norfolk navy yard and apprentices will be sent to the naval training station at Newport. The enlisting party will remain in Cleveland a week.

The specifications governing the work that is to be done in the way of dredging the Cleveland harbor have been returned to Major Kingman, Corps of Engineers, U. S. A. with the approval of the department attached. These specifications provide for the expenditure of the money for maintaining a harbor here. They have been submitted to the contractors, and bids will be received as soon as advertised for.

W. F. Herman, the general passenger agent of the Cleveland & Buffalo Line, is sending out handsome little trays for cigar ashes as summer souvenirs of the line. In the center each tray bears the picture of the steamer City of Erie, the "Flyer of the Lakes," and on the edges are the records which the Erie made in the race with the Tashmoo a year ago. The trays are both unique and useful. In the matter of advertising his line no passenger agent can equal Mr. Herman.

The investigation into the charges made by the Great Lakes Towing Co. against the striking tugmen, that they were a menace to navigation by refusing to tow boats, and that their licenses should be revoked, came to a close with the examination held by the inspectors Wednesday morning. The session was brief and the matter is now under consideration. The briefs in the case have been prepared and will be gone over in detail. The charges were made against Capt. Sweeney.

F. S. Masten, Esq., attorney of the Great Lakes Towing Co. said that the adverse decision of the steamboat inspectors at Buffalo was not on the question at issue, and that no more of the cases against the members of the tugmen's union would be prosecuted until the United States Solicitor General has ruled in regard to the admission of the testimony of the tugmen. An effort will be made to have the cases now on trial postponed and if that cannot be done the charges will be withdrawn until a decision is received from Washington.

Lake coal or that shipped ex-lake, is being delivered into the eastern trade. Most of the eastern cities which have ordinances prohibiting the use of soft coal within certain limits, have suspended the regulations. The result has been to create a new demand for high priced soft coal. With the demand from that quarter, lake and rail trade is receiving very little attention from the Pittsburgh and Eastern Ohio districts. There is still a good demand for coal at the head of the lakes. It is said that most of the coal there belongs to the railroads which are protecting themselves against the possibility of lessened production.

A fireman on the steamer Hutchinson threw some fresh meat overboard on Saturday when in this port because he said it was not good enough. The steward remonstrated with the fireman on the willful waste and backed up his views of the matter with a coupling pin, an instrument something like a norman, which hitherto has been known universally as "the second mate's friend." Steward Hodgson was given a hearing before Commissioner Meals on Monday and bound over on \$300 bail. The steward

must surely have heard some Western Ocean stories relating to the palmy "bucko" days. Such forceful arguments are now, however, in bad odor, and the steward will likely have a chance to ruminate while cooling his heels in the calaboose.

Edwin S. Mills, assistant manager of the Pittsburgh Steamship Co., is going to leave Cleveland to take a more important position with the United States Steel Corporation in New York. Mr. Harvey, who succeeds Mr. Mills, is a young man who got his business training in this city. For a number of years he was in the employ of Pickands, Mather & Co., as assistant to M. H. Coulby, in the vessel department. Mr. Harvey went to Duluth with Mr. Wolvin when the latter took charge of the trust fleet, where he has had charge of the movement of ore from ports at the head of Lake Superior. Mr. Collins, who will have charge of the local office, has been with Mr. Mills for a number of years and before he went with the Pittsburgh Steamship Co. he was with M. A. Hanna & Co.

This port will soon be headquarters for the United States revenue cutter Morrill, if the recommendation of Capt. Shoemaker, chief of the revenue cutter service, is approved by Secretary of the Treasury Shaw. The chief city of Ohio, and the second in size and commercial importance on the Great Lakes, is, in Capt. Shoemaker's opinion, a suitable place to station a cutter, and his judgment in such matters is usually followed by the Secretary. The Morrill is now stationed at Milwaukee, but before the end of the summer the captain hopes to have her transferred to Cleveland. A new revenue cutter, the Tuscarora, now nearing completion in the shipyards at Richmond, Va., will be assigned to the Milwaukee station in place of the Morrill. The Morrill is one of the trimmest vessels of her class. She is 145 feet long and 24 feet beam, and draws eight or nine feet of water. Her armament consists of a six pound rapid fire gun, and her complement consists of six officers and thirty-six men. She has been in the service on the lakes for some years. If the Morrill is assigned to Cleveland, as now seems quite certain, she will patrol Lake Erie and lower Lake Huron in search of smugglers and other violators of the customs and revenue laws.

At a meeting of the directors of the Great Lakes Towing Co., held on Wednesday, a resolution was adopted approving the acts of the officers of the company so far as they have proceeded in the tugmen's strike, and leaving the matter in their hands for further action. This was gratifying to the officers of the company, the Buffalo decision had very little or no direct bearing on the issue of the tug strike. As far as that goes, many of the friends of the Great Lakes Towing Co. are under the belief—their claim being just or unjust—that it was a mistake to ever proceed against the tugmen in that way, as such proceedings smacked of vindictiveness. Announcement was made by one of the attorneys for the Great Lakes Towing Co., that it is the intention of counsel presently to ask the Secretary of the Treasury to overrule the decision of the Local Inspectors, which prevented the collection of evidence from the witnesses. If the department refuses to overrule the decision, it is desired to request that some changes be made in the regulations which will admit the desired evidence, as it is deemed impossible, by the attorneys, to obtain a trial with the ruling permitted to stand as it was made.

## CONTRACT FOR A STEEL CARGO STEAMER.

The American Ship Building Co. closed a contract this week with Mr. C. W. Elphicke, of Chicago, for the construction of a steel steamer of 5,200 tons capacity on a mean draft of 18 feet. She is to be named the G. Watson French, in honor of the vice-president of the Republic Iron & Steel Co. The contract is for early delivery next season, and the estimated cost is \$250,000.

The general hull dimensions of the French will be 376 feet over all, 356 feet keel, 50 feet beam and 28 feet deep. She will have triple-expansion engines, with cylinders 20, 33½ and 55 inches, with 40-inch stroke. She will have two Scotch boilers 12½ feet in diameter and 11½ feet long, to be fitted with the Howden forced draft. It has not been decided at which of the branch yards she will be built.

This makes twenty-three vessels that the American Ship Building Co. has under contract in addition to the boats that are building for this year's delivery. Twenty of the boats are freight steamers, one is a large car ferry steamer and two are passenger steamers for the Detroit & Cleveland line, one of which will not come out until 1904.

Major T. W. Symons, Corps of Engineers, U. S. A., has made his annual report concerning river and harbor work in the district of Buffalo, N. Y. The estimates for the fiscal year, 1904, are as follows: Erie Harbor, Pennsylvania, \$127,000; Dunkirk Harbor, New York, \$25,000; Buffalo Harbor, New York, for the maintenance of improvement, \$75,000; Niagara River, from Tonawanda to Port Day, \$35,000; Charlotte Harbor, New York, \$75,000; Harbor at Little Sodus Bay, New York, \$68,500; Oswego Harbor, New York, \$50,000; Cape Vincent Harbor, New York, \$102,000; Improvement of the shoals of the St. Lawrence River, between Ogdensburg, New York, and the foot of Lake Ontario, \$40,000.



## COASTWISE COMMERCE ON THE GREAT LAKES

(Bureau of Statistics.)

Traffic on the Great Lakes for May this year shows receipts amounting to 6,795,401 tons, compared with a total of 3,934,601 tons for May, 1901. There is, therefore, an increase of 72.7 per cent. over the volume of business a year ago. This is due in part to the earlier opening of the lake season. Flour receipts have increased moderately while grain and flaxseed are less than half what they were in May, 1901. The greatest gains are shown in the amount of coal handled, in iron ore, in lumber and logs, and in unclassified freight. The amount of iron ore shipped from American lake ports to the end of May was 5,113,979 tons, and for the month of May alone 3,342,940 tons. The corresponding figures for 1901 were 1,601,623 tons for that season to the end of May, and 1,597,295 tons for the month of May. Receipts and shipments at minor lake ports for the month of May are presented for 76 points of receipt and 165 points of shipment. Including 59 ports mentioned in the detailed statement, the month's exhibit of lake business covers 135 points of receipt, and 224 points of shipment.

The freight movement east and west through the Sault Ste Marie Canal for the season ending with May, 1902, amounted to 6,764,893 tons this year, compared with 2,248,045 tons for last year and 4,565,879 tons for the preceding year.

The traffic taken account of in the following tables, except that reported as passing through the Sault Ste Marie and Portage Lake Canals, is coastwise traffic only, and is confined strictly to the commerce between the domestic ports on the Great Lakes and connecting rivers. It does not include shipments to or receipts from foreign ports on the lakes. A total of 135 ports of receipt and 224 ports of shipment have reported transactions.

The freight rates prevailing in May on the four leading commodities—grain, coal, lumber and ore—were as follows:

On grain: Wheat, Chicago to Buffalo, 1¼ cents per bushel; to Lake Erie ports, 1½ cents to 1½ cents per bushel. Corn: Chicago to Lake Erie ports, 1⅞ cents and 1¼ cents per bushel. Oats: Chicago to Buffalo, 1 cent per bushel. Flaxseed: Duluth to Lake Erie ports, 1¾ cents per bushel. Grain, Duluth to Lake Erie ports, 1½, 1⅞, and 1¾ cents per bushel.

On coal: Buffalo to Head of Lakes, 30 cents per ton; Cleveland to Portage and Marquette, 30 cents per ton.

On lumber and iron ore: The same rates prevail as reported last month.

## GERMANY ON FRANCE.

The opinion held by Germans on the navy of their great rival, France, appears to be much the same as that held in England of the French navy. In an article lately published in the "Zeitgeist," which is a supplement of the "Berliner Tageblatt," Count Reventlow remarked that it is of very great importance to know the defects and qualities of the officers and men of foreign powers, and, although a true comparison can only be made by the trial of war, there are some indications that suggest in what direction a distinction of qualities will be found. Count Reventlow is of the opinion that the body of the French naval officers will soon lose cohesion, since M. de Lanesau set himself, without any equivocation, to the work undertaken by General Andre, Minister of War. The purpose of the first mentioned politician was to recruit the body of officers as much as possible from the lower deck—in the opinion of the Germans an impossible scheme. Men who have spent half of their existence in obeying orders cannot maintain a constant initiative or assume responsibility in time of stress. Such a democratic tendency, says the German officer, raises a spirit of opposition among officers of higher station, and the result is to demoralize the force and to set up divided interests baneful to the general service. Another interesting point made is that the French naval officer is a lover of innovation in technical things, which we can quite believe of all naval men.

Steam Vessels Crossing—Violation of Rules.—A tug, with two scows in tow, was passing down East river on a course somewhat toward the Brooklyn shore, when she met the steamship Ocean coming up on a crossing course, so that the crossing involved danger of collision. The tug having the Ocean on her starboard side, it became her duty, under articles 19, 22 and 23, of the navigation rules, to keep out of the way, to avoid crossing ahead, and to slacken her speed or stop and reverse. The Ocean gave a signal of one whistle which the tug answered by a cross signal, and starboarded in an attempt to cross ahead. At a second cross signal the Ocean stopped and reversed, but too late to avoid collision with one of the scows. Held, that the tug was primarily in fault for violation of the rules, but that the Ocean was also in default because, under the special circumstances of the case, it was made her duty, by articles 27 and 29, to stop and reverse at once, on receiving the first cross signal. The Ocean, 115 Fed. Rep. (U. S.) 229.

## A CAPE HORN LIGHT-HOUSE.

Mr. David E. Hume, late Conservator of the River Humber, sends the following extract from the letter of a Chilean naval officer describing his visit to Cape Horn for the purpose of selecting a suitable site on which to erect a light-house. Mr. Hume mentions also that the recently-formed Hydrographical Department of the Chilean Government has already materially simplified the navigation of the Magellan Straits by erecting a light-house at each entrance and by placing beacons and buoys on several of the more intricate parts of the passage. The Chilean officer writes under date May 22, 1902:—"We were on the cruiser President Errazuriz, under the command of Capt. Arturo Cuevas, C. N., surveying the bay that the Captain named Allen Gardiner, on the north side of Hardy Peninsula, between Cape Jackson and Pack-eaddle, where the mission station is. We also were exploring the unsurveyed parts of these regions. When in Allen Gardiner we waited for a good day and went to Cape Horn at the rate of 15 knots. We got quite close to the land, and found landing places on the east side of the island and well protected from the west winds, which are dominant in these parts.

"In the first place it was a question of finding proper landing places; secondly, a well-protected place, solid foundations, good sea view, good altitude, not so low that the waves would interfere, and not so high that the clouds would cover it; thirdly, that the island should be fit for living. There are good slopes and valleys on the east side, protected from the winds, with streams of water, and big woods for obtaining firewood. Having assured ourselves of these things, it is a very easy matter of making the proper plans and outlaying the light-house. If I say easy, I do not mean it is an easy task—long way from it, but that it is possible and that there would never be the immense difficulties there were in the building of the Evangelistas Light-house on the rocks of the same name in the west entrance of the Straits of Magellan."

## SHIP CANALS.

The oldest and most important ship canal is that of Suez, begun in 1856 and completed in 1869. It is 100 miles in length and cost \$93,000,000. It was at first 54 meters wide on top, 22 meters at the bottom and 8 meters deep, but in 1892 \$10,000,000 were expended to increase these dimensions to 77, 34½ and nearly 9 meters respectively, and it is now proposed to increase the depth to 10 meters. Ships are allowed to pass through it at a speed of 5 35-100 miles per hour, so that the whole length can be traversed in 18½ hours. Night navigation is made possible by electric lights, which were introduced in 1887. The tolls are \$2 per ton. In 1870, 486 ships passed through the canal; in 1880, 2,026; in 1900, 3,441. In the year 1899, 221,348 passengers were transported.

In 1887 the Emperor William Canal to connect the North sea with the Baltic was begun, and the canal was opened in 1895. Its cost was \$40,000,000. Its length is 98 kilometers, its depth is 9 meters and it is traversed in less than 12 hours. Its receipts do not cover expenses. Still another canal connecting the North sea with the Baltic was opened in 1900. Its length is 65 kilometers, its depth only 3 meters, and its cost was \$6,000,000. The Manchester ship canal is 87 kilometers long and nearly 8 meters deep and cost \$85,000,000.

Amsterdam is connected with the sea with a ship canal opened in 1845, and Rotterdam is likewise connected with deep water by a canal opened in 1866. St. Petersburg also has a ship canal 25 kilometers long. The Gulf of Corinth Canal was finished in 1893. It is only 6 3-10 kilometers in length and cost about \$5,000,000. Konigsberg has a ship canal completed in 1890, 33 kilometers long, that cost about \$2,000,000. There are two great ship canals in America connecting Lakes Huron and Superior, and another, the Welland, connecting Erie and Ontario. The canals at Ste. Marie carried 24,600,000 tons in 1901, more than twice that of Suez for the same year.

## HULL STRAINS AND STRESSES.

The British Admiralty propose to test the structural strength of their torpedo boats by subjecting the Wolf to a series of tests, which will include hogging and sagging strains. At first she will be sagged by being hung by the head and stern from two platforms having no support beneath. The middle will then be hogged; that is, she will be balanced across a pile of timber so that the full strain of the unsupported fore and aft parts will be thrown on the center of the vessel. The experiments will prove whether a destroyer's hull is so weak, as was suggested in the case of the Cobra, that the back breaks when a wave lifts her amidships or a sea lifts her in such a manner that the wave is hollow beneath her middle.

It is interestingly calculated by a mechanical expert that if the 20,000 horse-power engines of the modern trans-Atlantic liner were duplicated by human muscles of that power, three shifts of 200,000 men each, working eight hours each day, or 600,000 men total, would be required. This would give below deck a population of a city of second grade.

## COMMERCIAL ALASKA.

A million dollars a month is the estimate made by the Bureau of Statistics of the present value of the market which "frozen Alaska" offers the producers and manufacturers of the United States.

"Commercial Alaska in 1901" is the title of a monograph just issued by the Treasury Bureau of Statistics. In it are represented some striking figures about this (until recently) little explored and little understood territory of the United States. By reason of the application of modern systems of travel and transportation, Alaska is now as accessible as Arizona. Three days of travel by modern ocean steamers from Seattle, among the islands and along the coast which forms the southeastern extension of Alaska, lands the traveler at Skagwa; twelve hours by rail over the mountains carries him to the head waters of the Yukon where comfortable and well equipped river steamers carry him to the gold field of Central Alaska or down the Yukon river which is navigable for more than 2,000 miles at this season of the year. From the mouth of the Yukon another comparatively short trip, by steamer, carries him to Cape Nome—the latest and greatest of the gold fields of Alaska.

Gold, fish and furs are, according to this monograph, the principal industries of Alaska at the present time, and they send to the United States fifteen million dollars' worth of their products—eight millions of gold, six millions of fish, chiefly salmon, and the remainder furs.

The cost of Alaska was \$7,200,000. The revenue which the government has derived from it since its purchase amounts to over nine million dollars, and the value of the products are now twice as much every year as it cost. The total value of the products of Alaska brought to the United States since its purchase is (according to the best estimates that the Bureau of Statistics is able to make) about 150 millions, of which 50 millions is precious metals, 50 millions products of the fisheries, chiefly salmon, and 50 million more furs, chiefly seal fur. Probably 50 million dollars of American capital are invested in Alaskan industries and business enterprises, including transportation systems. In the salmon fisheries alone, the companies engaged have a capitalization of 22 million dollars and the value of their plants, including vessels, is given at 12 million dollars. In the mining industries there are large investments—the great quartz mill at Juneau being the largest quartz stamp mill in the world, while several other quartz mills represent large investments. With the inflow of capital, the development of transportation systems, and the gold discoveries, has come the building up of towns and the development of cities with modern conveniences of life. Nome City, which is located but a comparatively short distance south of the Arctic circle, has now a population of over 12,000; postal facilities have been so extended that the number of post-offices is now about 60, and mails are being regularly delivered north of the Arctic circle.

The gross area of Alaska is, according to the 1900 census, 590,804. The governor of Alaska in a recent report states that this is equal to the combined area of the twenty states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi and Tennessee.

## THE MARITIME CONFERENCE AT HAMBURG.

### THE LAW OF SALVAGE AND COLLISION.

For this Conference, preliminary reports have been received from the National Associations or Committees in the United States, England, Germany, Norway, Sweden, Japan, and Denmark. All are favorable to the International Code on the Law of Collision and Salvage, which has been drafted by a sub-committee under the presidency of Lord Alverstone. This code, which embodies the resolutions of the International Conferences held in 1898 at Antwerp, 1899 at London, and 1900 at Paris, will, no doubt, be unanimously carried at the Hamburg Conference, and recommended for adoption to the Governments. It would be a distinct progress if in this way the law of collision at sea could become uniform without distinction of nationality.

The Hamburg Conference will further have to consider which would be the best international principles as to the jurisdiction in collision cases. On this matter the reports very widely differ. However, it is not impossible that some basis for a practicable understanding may be found at Hamburg.

The Hamburg Conference will be a sort of international maritime Parliament, seeing that the members present will be the delegates elected of a series of national associations and committees constituted amongst lawyers, ship-owners, and underwriters in the following countries, with the aim of working towards unification of maritime law—England, United States, France, Germany, Italy, Japan, Austria, Norway, Belgium, Holland, and Sweden. A similar association has just been constituted at Fiume for Hungary, under the presidency of his Excellency Count Albert Apponyi, President of the Chamber of Deputies at Buda-Pesth. The members of the Hamburg Conference will be the guests of the Senate and of the German Association of International Maritime Law, under the presidency of Dr. Sieveking.



## THE DEVELOPMENT OF CANADA.

The development of the Dominion of Canada is progressing at a rapid pace. Few people in other countries comprehend that Canada represents 30 per cent. of the entire British Empire and one-fifteenth of the land area of the world. At no period since the settlement of the country has it received so large an inflow of immigration as within the last two years. The production of the country is immense, when it is considered that the population is not over 5,500,000. Manufacturing industries are increasing and are generally prosperous. The men managing them are enterprising, and with great energy are seeking trade over all the world.

The agricultural wealth of the country is enormous. Immense cultivated areas furnish grain for the miller, fruit and vegetables for the canner; beef, pork, and mutton for the meat trade; and cream for the butter and cheese factories. Canada's forests are now regarded as one of the chief sources for the supply of pulp wood for the paper industry of the world; and on her famous fisheries rest many important industries. Great deposits of the finest ore have recently been found; while good lead, asbestos, nickel, copper, silver and mica mines are being opened up in all directions. The facilities for transportation are excellent. The Canadian Pacific railway stretches from ocean to ocean, while the Grand Trunk covers the eastern Provinces. Both systems are continually growing. Within two or three years, another great line of railway will be completed, extending from Halifax to Vancouver and Victoria. Feeders to all these lines are being constantly constructed. No country, except the United States has gone forward so rapidly in its transportation facilities as Canada. In 1867, the total railway track laid was 2,087 miles and in 1900 it was 17,824 miles. Several hundred miles were added last year.

The work of canal construction has been vigorously conducted. The total amount spent in construction and enlargement up to 1900 was \$95,316,000, of which \$74,600,000 was expended since confederation. Canada can justly boast of having one of the most complete systems of canals in the world. The governments since confederation have contributed for the construction of railways and canals \$292,921,000. The total capital invested in railways and canals in Canada is \$1,100,000,000.

There is no question that there is an enormous amount of smuggling from Canada into the United States and from the United States into Canada. One large firm in Montreal is said to have succeeded in smuggling into the United States tens of thousands of dollars' worth of goods every year. It sells largely to American visitors, and agrees to deliver the goods to their homes free of duty. The matter has been fully exposed, but the practice still continues.

There is smuggling all along the border line from the Atlantic to the Pacific coast. JOHN L. BITTINGER,  
Montreal Consul-General.

## EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the eastern freight market as follows:

Since our last issue weather conditions in the agricultural districts have only been partially of a favorable nature, but reports of serious damage to the wheat crop have considerably decreased, and it now appears that as a whole the benefits sustained from the rains very largely exceed the damage that has been done. The opinion in regard to the maize crop is without exception of a most favorable nature, and if the present outlook is maintained the crop of this cereal will unquestionably prove an exceedingly large one.

The reports from the cotton growing sections have not been altogether as favorable as hitherto, but we hardly think that any serious damage has been done.

Whilst, in consequence the prospects for freights in the future are very promising, we are at present passing through a depression such as has seldom, if ever, been experienced; the regular liners can hardly secure sufficient weight cargo for ballast purposes, quite irrespective of the rate of freight, and all vessels leave with part cargoes only. The present situation is likely to continue for the next month or two.

The demand for timber and deals has subsided considerably, and the only feature of any special interest at present is the inquiry for full cargoes of the new wheat to be loaded from the Gulf ports, for both prompt and distant shipment. 2s. 3d. to picked ports is offered for September loading, whilst a regular line vessel has abandoned her voyage from New York and accepted 2s. 1½d from Galveston to Antwerp or Rotterdam for prompt loading.

There is nothing whatever doing in case oil, whilst the inquiry for boats on time charter is extremely limited; owners are not showing any anxiety to fix ahead at anything like recent rates.

Business in sailing vessels continues of a very limited order and with tonnage offerings still largely in excess of requirements, the situation does not present any encouraging features. Far East case oil ships have accepted a further decline in rates as the annexed figures show.

Grain to Glasgow 2 cents, London, Liverpool or Bristol 3 cents.

## AN ADEQUATE FOG SIGNAL.

In order to mitigate the dangers attendant upon fogs, and to allow vessels to proceed at a speed sufficiently fast to maintain their relative positions, Capt. Ridley, of steamship *Lancastrian*, suggests an explosive signal for use on board sailing vessels, which signal should rise a sufficient height into the air to prevent the sound being obstructed or intercepted by the sail, rigging, and other obstructions peculiar to sailing vessels, and having risen to this height, to explode with one, two, or three reports, according to the conditions under which the vessel is sailing. Failing in this, the use of a siren is suggested, which instrument should be confined exclusively to sailing vessels, and should be prohibited on board steamers. The siren should be of such a nature and size as to emit a volume of sound equal to that of an ordinary steamer's whistle, and capable of maintaining that sound for a period of not less than four seconds' duration. Mariners are cordially invited to express their opinion in regard to these suggestions, or to give other ideas on the subject, as until something is done to provide an efficient fog signal on board sailing vessels, lives, not to speak of valuable property, will be subjected to a continued and unnecessary risk.

## ASTRONOMICAL EXPEDITION.

The reflecting telescope mirrors for use with the D. C. Mills expedition from the Lick Observatory, to Chile, recently completed by an Allegheny, Pa., firm, have reached Mount Hamilton in perfect condition. The glass was cast in Paris and sent to Allegheny to be polished.

The telescope mounting to hold the mirrors have been set up in the rear of the observatory. When the adjustments and tests of the assembled apparatus have been completed all will be packed for shipment about August 2, to the vicinity of Valparaiso, Chile. A modern steel dome to cover the telescope has been constructed in Cleveland, O., and will soon reach San Francisco for shipment. The purpose of the expedition is to observe spectroscopically the brighter stars in the southern hemisphere, which cannot be observed from Mount Hamilton. The observations in both hemispheres are to be used by Director Campbell and Assistant Astronomer Wright in determining the motion of the Solar System through space. The expedition plans to remain in Chile about three years.

## PERSONAL DAMAGE CLAIM.

Andrew Boehringer, a seaman who was employed on the steamer *Troy*, and who had his left leg torn off by a tow rope, was granted \$575 as damages in a decision handed down by Judge Hazel, at Buffalo, last week. Boehringer sued to recover \$10,000.

The accident occurred at Duluth last season. Boehringer was employed coiling out rope ready to moor the boat. The vessel was approaching the dock at ordinary speed. The rope fouled something and pulled the sailor to the hawser-pipe, and before anybody could assist him the rope tore his leg off at the knee.

Boehringer was attended by a doctor and carried back to Buffalo. The action for damages resulted and in his decision, Judge Hazel says that the attorneys for the sailor did not offer evidence to show how long the man's injury was in healing or how much medical attendance he required. But he decreed that Boehringer was entitled to \$600 for living expenses during which time he might recover, and that \$75 for medical expenses be given him, together with the cost of the trial.

## THE STEAMBOAT INSPECTION SERVICE.

Under the caption of "What Kind of Inspection is This?" the Detroit Evening News had the following to say in a recent issue:

"The disclosures made by Capt. J. W. Little, of the steam barge *Dunbar*, which foundered in Lake Erie last Sunday, show either lax inspection laws or the improper and inadequate enforcement of such as exist. It is also apparent that little attention is paid by vessel masters to the identity of their crews. The crew of the vessel consisted of seven men besides the captain, whose wife and daughter made the total number of persons on board ten. Of the seven men the captain knew the full name of only one and he guessed at the spelling of that. Of the others he knew the last names of some the first names of others, the nickname of one, and of one he knew only that he was a fireman and had red hair. The conditions show the great importance of having the names of the crew of every vessel registered on shore before the vessel sails.

"The other fact of importance is the life-saving equipment of the foundered vessel. She had plenty of pumps, it seems, and a fair supply of life-preservers, but only one small yawl and a life-raft. The yawl, the captain said, would hold five men. The capacity of the life-raft was the same, and the condition of both is exemplified by the statement attributed to one of the crew that he would rather take his chances on a plank, and he did it.

"In these circumstances the loss of life is not remarkable. The facts speak for themselves and render comment unnecessary."

## SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLATED SPECIALLY FOR THE MARINE RECORD.)

Necessary Supplies—Bar Fixtures and Supplies.—Bar supplies and fixtures furnished to a vessel are not necessities, for the price of which a suit in rem against the vessel may be maintained, under the twelfth admiralty rule. *The Robert Dollar*, 115 Fed. Rep. (U. S.) 218.

Maritime Liens—Supplies—Defense by Charterer.—A charterer who has obtained necessary supplies on the credit of the ship, in violation of his agreement with the owner in the charter party, cannot plead such agreement to defeat a lien by the creditor. *The Robert Dollar*, 115 Fed. Rep. (U. S.) 218.

Shipping—Workmen Engaged in Repairing—Open Hatch—Liability of Vessel.—The act of a master and a crew of a vessel in failing to provide artificial light, and in permitting a hatch to remain open, will not subject the vessel to libel by the administrator of a person who was employed in repairing the vessel by one having charge of the work, and who fell through the hatch and was injured. *The Thyra*, 114 Fed. Rep. (U. S.) 978.

Collision—Steamers Crossing—Excessive Speed in Fog.—In a suit for a collision in the night between the Atlantic steamship *Biela* and *Eagle Point*, 150 miles east of Sandy Hook, while on crossing courses, the evidence and surrounding circumstances considered, and held to sustain the contention of the *Eagle Point* that there was a fog at the time and place of collision so dense that the two vessels could not see each other until within 250 yards, and that the *Biela* was therefore in fault for maintaining full speed and failing to give fog signals. *The Eagle Point*, 114 Fed. Rep. (U. S.) 971.

Carriers—Injury to Freight.—A carrier, having received in good condition a large block of deeply veined marble, which, after notice to the officer of the ship in charge of the stowage "that it was a weak looking block; that it wouldn't take much to break it," was stowed so that it supported overlying cargo, with no support for itself, except pieces of dunnage near each end, with one end resting unevenly on the dunnage, is liable for the break at the end, extending partly through a vein. *The Victoria*, 114 Fed. Rep. (U. S.) 962.

Forfeiture of Wages—Desertion at Sea.—Libellant, a seaman, who has signed for a voyage to an Alaskan port and return to a port of the United States, before reaching the port of destination, and while at sea, went on board another vessel without leave, where he became intoxicated and refused to return when ordered, and did not thereafter return or offer to return to his service. Held, that his intoxication was no excuse, and that by his desertion he forfeited his wages earned. *The Mermaid*, 115 Fed. Rep. (U. S.) 13.

Shipping—Carriers of Passengers—Vessel Leaving Before Time—Rights of Ticket Holder.—The holder of a steamship ticket cannot recover in tort from the steamship company by reason of the vessel leaving before the agreed time, by which the ticket holder is prevented from taking passage thereon, when such act is the result of the act of the government inspector, under Rev. St. U. S., Sec. 4465, which declares that it should not be lawful for any steamer to receive more passengers than stated in its certificate of inspection, in refusing to allow the vessel to receive any more passengers. *Hughson vs. Winthrop Steamboat Co.*, 64 N. E. Rep. (Mass.) 74.

Injury to Stevedore—Defective Chain—Inspection.—A chain used for unloading a ship, and which broke, injuring a stevedore, while a load weighing a ton was raised, its capacity in good condition being from three to four tons, and which had been used for several years without needing repair, except that shortly before a link broke and was replaced with a new one, was inspected, so as to relieve the ship from negligence; two of the ship's officers having, just before it was used, examined it link by link, and the break being at the side of a link, and due to imperfect welding, and the defect not being discoverable without the application of strain by a testing machine or the use of acid or a microscope, which was not required by the facts known about the chain. *The Drummond*, 114 Fed. Rep. (U. S.) 976.

Discrimination in Rates of Pilotage.—Rev. St. 1895, art. 3801, exempting from extra pilotage all vessels owned in Texas, when arriving from or departing from any port in the state, and the statute subjecting certain coastwise steam vessels to pilotage, are in conflict with Rev. St. U. S. § 4237, providing that no regulations shall be adopted by any state which shall make any discrimination in the rate of pilotage or half pilotage between vessels sailing between ports of one state and those sailing between different states, etc.; and section 4444, declaring that no state shall impose on pilots of steam vessels any obligation to procure a state or other license in addition to that issued by the United States; provided, such act shall not affect any state regulation requiring vessels other than coastwise steam vessels to take a duly licensed pilot. *Olsen vs. Smith et al.*, 68 S. W. Rep. (Tex.) 320.





DEVOTED TO NAVIGATION, COMMERCE, ENGINEERING  
AND SCIENCE.  
ESTABLISHED 1878.

PUBLISHED EVERY THURSDAY BY  
**THE MARINE RECORD PUBLISHING CO.**  
Incorporated.

C. E. RUSKIN.....Manager  
CAPT. JOHN SWAINSON.....Editor

CLEVELAND, CHICAGO.  
Vestern Reserve Building. Royal Insurance Building.

#### SUBSCRIPTION.

One copy, one year, postage paid.....\$2.00  
One copy, one year, to foreign countries.....\$3.00  
Invariably in advance.

#### ADVERTISING.

Rates given on application.

All communications should be addressed to the Cleveland  
office,

**THE MARINE RECORD PUBLISHING CO.**  
Western Reserve Building, Cleveland, O.

Entered at Cleveland Postoffice as second-class mail matter.

No attention is paid to anonymous communications, but  
the wishes of contributors as to the use of their names  
will be scrupulously regarded.

CLEVELAND, O., JULY 17, 1902.

THREATS by a private citizen and Ex-Inspector of  
Steamboats seems to have been turned awry since the de-  
cision of the license granting board at Buffalo. Ah well!  
the "best laid plans of men and mice," etc.

SUPERVISING Inspector-General James A. Dumont, of  
the Steamboat Inspection Service, is to be congratulated  
on the ability and erudition displayed by his subordinates  
at Buffalo, in their decision this week regarding the license  
cancelling cases.

ALL hail! May the knowledge of duty well done be a  
balm to the minds and consciences of the Buffalo Local  
Inspectors of Steamboats. They have outshone and  
eclipsed all former action in the safe guarding of officers'  
licenses and passed to one side the most influential,  
though ill-advised pressure that could have been brought  
to bear upon them or their colleagues at other ports.

REAR ADMIRAL MARCUS LOWTHER, who joined the Brit-  
ish navy in 1831, writing to the United Service Gazette  
of nautical terms, says that in the old days port and star-  
board were in use for steering, and no mistakes were ever  
made by the helmsmen; besides, they had been the "cus-  
tom of the sea" beyond the memory of man. Some sup-  
pose the two to be confounded, but sailors always put a  
strong accent on star and none on board. These words  
have a fullness wholly wanting in "right and left," both  
weak words, especially left, difficult to be heard in a  
breeze

THE seven-masted steel built schooner Thomas W.  
Lawson, launched at Quincy, Mass., last Thursday, may be  
considered as a one man notion, not exactly a freak, but as  
showing no indication of a new departure in the shipbuild-  
ing are. There are thousands of steel vessels afloat,  
equipped and rigged to the best possible advantage for  
their special, or the general trade, and we can say of this,  
the first seven-masted fore-and-aft ever built, that the  
rig, except for the New England coasting trade, is not al-  
ways found to be the most seaworthy, the handiest and  
best.

#### ALIEN SEAMEN.

The periodical flurry indulged in by immigration officers,  
at the behest of labor unions, regarding alien seamen  
sailing on vessels engaged in the lake trade is again to  
the fore this week at Toledo and Ogdensburg, N. Y.

The officers of the Lake Seamen's Union, in its past  
and palmiest days never even thought of interesting the  
members of that organization in the question of a sail-  
or's nationality, well knowing, that no law, in any part  
of the world, prevented a seaman from shipping, or a ves-  
sel from obtaining a crew at any port where such were  
required.

It is a well known law that under ordinary conditions  
the officers of an American vessel must be citizens of the  
United States, and, as engineers are licensed officers, they  
also, must, perforce, be citizens of the country, native or  
naturalized. It is also generally known that any alien  
who, in the manner provided for by law, has declared his  
intention to become a citizen of the United States, and  
who shall have been a permanent resident of the country  
for at least six months immediately prior to the granting  
of such license, may be licensed, as if already naturalized,  
to serve as an engineer or pilot upon any steam vessel  
subject to the provisions of Revised Statutes 4399-4500,  
and that this law has been in force for nearly 30 years,  
also as approved in 1896.

There is no law extant which says that all the seamen  
of a merchant vessel must be citizens of the United States,  
yet the way is made easy for their becoming such, in  
proof of which we quote from the Revised Statute 2174:

"Every seaman, being a foreigner, who declares his in-  
tention of becoming a citizen of the United States in  
any competent court, and shall have served three years  
on board of a merchant vessel of the United States sub-  
sequent to the date of such declaration, may, on his appli-  
cation to any competent court, and the production of his  
certificate of discharge and good conduct during that time,  
together with the certificate of his declaration of intention  
to become a citizen, be admitted a citizen of the United  
States; and every seaman being a foreigner, shall after  
his declaration of intention to become a citizen of the  
United States, and after he shall have served three years,  
be deemed a citizen of the United States for the purpose of  
manning and serving on board any merchant vessel of the  
United States, anything to the contrary in any act of  
Congress notwithstanding, but such seaman shall, for all  
purposes of protection as an American citizen be deemed  
such, after the filing of his declaration of intention to be-  
come such citizen."

While it might be to the best interests of citizens en-  
gaged in lake sailing, to debar all men or women of other  
nationalities from engaging to work on board an American  
vessel, it is open to doubt if such a measure would re-  
bound towards the easiest flow of commercial progres-  
sion, and, whether on the other hand, it might not be  
considered as an uncalled for hindrance to commerce, and  
as an interference with the rights and privileges of private  
citizens in the successful prosecution of their business  
and liberties. The question, therefore, resolves itself into  
the fact, that, however much we might like to see none  
but citizens employed on lake vessels sailing under the  
American flag, there is no law authorizing, or rather  
compelling such a condition to prevail, the spasmodic and  
ill advised efforts of immigration officers and others to  
the contrary notwithstanding.

Quoting from a Toledo daily newspaper of even date,  
the situation is placed in the following form:

"Another flagrant violation of the alien contract labor  
law was unearthed yesterday morning by Col. Morrow,  
immigrant inspector, who discovered three Canadians em-  
ployed on the steamer D. W. Rust, an American prop-  
eller owned by Capt. L. S. Sullivan, of this city, and  
now lying at the Hocking dock. The three Canadians  
are M. M. Phillips, of Picton, Ont., employed as watch-  
man, Sarah Kelly, employed as cook, and a boy whose  
name was not learned and who was discharged yesterday.  
Colonel Morrow will deport Phillips, but the cook, who  
has already taken out an oath of intention to become a  
citizen of the United States, was placed under bond to  
take out the final papers. The penalty for a violation of  
the alien contract labor law is one year in the penitentiary  
or \$1,000 fine or both. It has not yet developed who is  
responsible for bringing the Canadians here, but Capt.  
L. S. Sullivan, owner of the Rust, claims he did not know  
anything concerning the Canucks or their presence aboard  
the vessel."

The alien contract labor law does not apply to sailors in  
exactly the same way as it does to workers on shore.  
The sailor, of any nationality, is not imported to labor, he  
enters into no agreement while in a foreign country, or

the land of his nativity, to carry out the provisions of a  
certain contract. He is engaged on the spot to perform  
immediate labor after the manner of his calling and this  
too, irrespective of his nationality, but in every sense as  
bearing on his previous condition and servitude, though,  
in so far as the special service is concerned, the conten-  
tion would apply with equal force in the case of skilled  
labor on shore. However, it goes without saying, that  
there are a large number of foreigners sailing in American  
bottoms engaged in the lake service, and to refuse shipping  
them, much less insisting upon their deportation, would  
be quite as ridiculous as illegal.

Before this everyday problem assumes a more stren-  
uous attitude, it would be well for those most interested  
to obtain a positive ruling regarding the shipment of  
crews, from the highest possible authority, who, in this  
instance, is the Secretary of the Treasury. The question  
of the status of foreign seamen thus being decided and  
settled properly, as it should be, would prevent the periodi-  
cal recurrence of annoyances to masters and owners of  
floating property engaged in the lake trade. Foreign born  
seamen have a right to ship or they ought not to be car-  
ried, they have a right to labor under the Stars and  
Stripes or they should be pulled off every craft on which  
they sail, by the law abiding officers of the immigration  
bureau.

#### LICENSES PROTECTED.

Commend us to the decision arrived at this week by the  
local inspectors of steamboats at Buffalo and the appar-  
ent trend of thought and ruling observed by the officers  
holding similar positions at Chicago.

In the action brought by a towing company to suspend,  
or cancel the licenses of tugboatmen, because they refused  
to accede to the demands of their employers, there was  
more at stake than those engaged in the suit appeared to  
comprehend, though in some instances, the knave acted  
the fool part in complaisantly shielding his bearing from  
the dangers of the ignorant results which he hoped would  
obtain at the close of the burlesque.

A syndicate of wealthy capitalists owning the majority  
of tugs in service at lake ports, offered certain terms of  
employment and remuneration thereof to licensed officers.  
On the offer being rejected, steps were taken and the  
machinery of the government put in force to take away  
the officers' licenses, and this, not as a means of starving  
them into submission, but as it would appear, to be from  
a spirit of retaliation, as the men being deprived of their  
licenses would no longer have been available for service,  
hence, they and their dependents might go and starve for  
all that their former employers cared, or rather, that was  
the point desired, and to which action was taken so that  
they might be driven thereto.

Under the foregoing conditions the RECORD, consistently  
and single handed fought against the licenses being  
brought into question in any form. The revocation of  
the license of a tugboatman bore a direct and absolute re-  
lation to that held by the officer of an ocean liner, and  
meant no less, or no more, in their respective waters. In  
this instance, the dispute was solely one of labor and its  
terms, as opposed to, and distinct from, technical skill  
and special qualifications, and these are the only grounds  
and features on which the issuance of licenses are, or can  
be based.

It is beyond the bounds of reason or common sense to  
even imagine that those engaged in the prosecution for the  
revocation of the officers' licenses, acted fairly with them-  
selves, their knowledge or consciences. It seemed as if  
they were trying to deceive the licensed officers, the gov-  
ernment, and bluffing themselves into an attitude whereby  
a stampede might result, and a weak-kneed minority bend  
their necks to the yoke of intolerable and illegal servitude.  
Never has such luminous intelligence received so severe  
and deserved a technical and legal castigation, or the  
steamboat inspection service the merited praise to which  
it is now so justly entitled through the decision of the  
upright and circumspect rulings of its officers at Buffalo.

Subject of Insurance.—A carrier's liability for carrying  
goods on deck is a proper subject for marine insurance.  
Ursula Bright S. S. Co., Limited, vs. Amsinck et al.,  
115 Fed. Rep. (U. S.) 242.



## UPBUILDING UNITED STATES SHIPPING.

Wm. W. Bates, Ex-Commissioner of Navigation, under the auspices of the Home Market Club, Boston, Mass., publishes a pamphlet on the discriminating duty plan, as a contribution to the study of the best means of upbuilding the United States mercantile marine.

Mr. Bates critically examines the existing conventions and treaties, and finds that they present no insurmountable obstacles regarding a withdrawal therefrom, by this country. The shipping plank in the Republican platform of 1896 is quoted in support of his contention, and, which our readers may remember is couched in the following terms.

"We favor restoring the early American policy of discriminating duties for the upholding of our merchant marine and the protection of our shipping in the foreign carrying trade, so that American ships—the product of American labor, employed in American shipyards, sailing under the Stars and Stripes, and manned, officered and owned by Americans—may regain the carrying of our foreign commerce."

Early in the McKinley administration the party leaders became convinced that our commercial treaties with many countries, which commit the country against discriminating duties, could not be denounced without bringing in a concert of reprisals, which at that time it was felt would be embarrassing, if not dangerous. Hence the so-called Hanna-Payne shipping bill, which provided bounties instead of discriminating duties, was introduced. Two main objects to this bill were urged, one that bounties are unconstitutional and unwise, and the other that they would chiefly go to promote a fast passenger service, conducted by combinations of wealthy shipowners. Finally deliberation developed what came to be known as the Frye shipping bill. After long discussion and some amendments this bill passed the Senate on the 17th of March, 1902, by a vote of 42 to 31, but among those who voted in the negative were Senators Allison and Dolliver, of Iowa, Proctor and Dillingham, of Vermont, and Spooner and Quarles of Wisconsin. It was at once recognized that such Republican opposition as this in the Senate indicated the possible defeat of it by Congress.

EVEN the best conducted ships of this or any other navy, are liable to get into trouble at times. The flag ship of a squadron on exhibition ought to be duly cautious, perhaps extraordinarily so, at least Admiral Crowninshield, of the U. S. S. Illinois, will no doubt be now willing to admit as much. A special dispatch from Norway says: "While the Illinois was standing into the harbor at Christiania, leading the squadron, her steering gear failed and her helm jammed hard to starboard, with the ship headed straight for the shore. Both anchors were let go and her engines were backed promptly, but the port anchor chain parted. The ship struck and a hole was punched in her bottom. Two compartments filled with water, the crew was piped to collision quarters and the water tight doors were closed. The rest of the squadron stood into the inner harbor. The Illinois was eventually backed off and anchored safely. Rear Admiral Crowninshield will probably shift his flag to the U. S. S. Chicago, and the remainder of the proposed Baltic cruise may be abandoned." It is quite possible that no amount of inspection would have shown the flaw in the mechanism of her steering gear. On the other hand, there is but slight excuse for one of the best battleships afloat and the flagship of a squadron being found so simply defective. A foreign drydock must be used to effect repairs.

CAPT. J. C. Bonner, Collector of Customs, Toledo, having in view the recent collision between a tug and naphtha launch at that port, whereby several lives were lost, now issues what is called a "stern" warning to all owners of small boats on the Maumee river and in the harbor, regarding the exhibition of signal lights. The Collector very pertinently calls to mind that every species of boat is required to carry lights at night and he threatens prompt and efficient punishment for any failures to obey, if reported to him. Col. Bonner, however, seems to quote from a municipal ordinance, and in a measure, to assume the duties of a harbor-master in support of local by-laws and regulations. The act referred to reads as follows: "Every form of water craft, from

a row-boat to a passenger steamer, whether propelled by hand, sail or machinery, when operated in the waters of Maumee Bay or river (from Perrysburg on the south), is amenable to the act of Congress approved February 8, 1895, entitled 'An Act to Regulate Navigation on the Great Lakes and their Connecting Tributary Waters.' Of course there is no such wording in the statutes embodying the "Rules of the Road," though special harbor regulations may be enacted for any particular locality. According to Rule 11 even open boats must show a light at night time.

## A SEVEN-MASTED SCHOONER.

A seven masted steel schooner with her lower masts stepped, was successfully launched from the yards of the Fore River shipyard, Quincy, Mass., on Thursday last.

Her general hull dimensions are, 403 feet over all, 50 feet beam and 35 feet depth of hold, she will be equipped with two small deck engines and boilers, electric dynamo, steam steerer, stockless anchors and all the latest and best improvements for the handling of ship and cargoes. The steel lower masts are 32 inches in diameter at the heel and 140 feet in length, on which are stepped 58 feet pine topmasts.

The carrying capacity of the Thomas W. Lawson is placed at 8,100 tons coal, and she carries 43,000 square feet of canvas. She will have a crew of sixteen all told, and her total cost is estimated at \$250,000.

## THE LIGHT-HOUSE SERVICE.

The United States maintains over 1,200 light-houses, 44 light vessels, 172 steam or hot-air fog signals, 221 signals run by clockwork, 475 day or unlighted beacons, 73 whistling buoys, 120 bell buoys, and 1,400 post lights on western rivers. There are over 10,000 nautical miles of ocean, gulf, bay, sound, lake and river shores that are lighted, not counting the Ohio, Mississippi and Missouri rivers. The cost of lighting and buoying the United States coast is said to be about \$2,500,000 annually, or \$250 a nautical mile.

## SAILING DIRECTIONS.

The fourth volume of the new issue of Sailing Directions for the Great Lakes, H. O., No. 108 D, Lake Erie and Lake Ontario, St. Clair and Detroit Rivers, completes the series; this comprises four volumes, prepared by Lieut. Charles M. McCarteney, U. S. N., as follows:

H. O., No. 108 A, Lake Superior and the St. Marys River.

H. O., No. 108 B, Lake Michigan, Green Bay, and the Strait of Mackinac.

H. O., No. 108 C, Lake Huron, Strait of Mackinac, St. Clair and Detroit Rivers, and St. Marys River.

H. O., No. 108 D, Lake Erie and Lake Ontario, St. Clair and Detroit Rivers.

The material was derived from the latest sources of information received from the branch hydrographic offices on the Great Lakes, from the bulletins, and official records of harbor improvements contained in the reports of the Chief of Engineers, U. S. A., from the publications of the Light-House Board, and the Sailing Directions for the Canadian shore of Lake Erie, published by the Department of Marine and Fisheries, Ottawa.

As during the season of navigation, improvements in the rivers and harbors of the Great Lakes are continually going on, and new surveys are being made, many changes of necessity occur, to which the attention of mariners is invited, and they are requested to communicate, either directly with this office or with the various branch offices on the lakes, all information of value affecting these publications.

Additional information or changes noted, will be promptly issued in the Notices to Mariners for the benefit of the mercantile community, and published in the form of supplements to each of the above volumes.

There are five branch hydrographic offices on the Great Lakes, which are located as follows:

Duluth, Minn., Torrey Building.

Sault Ste. Marie, Mich., News Building.

Chicago, Ill., Masonic Building.

Cleveland, Ohio, Arcade Building.

Buffalo, N. Y., Prudential Building.

Mariners and others are invited to visit these offices for examination of the files, and for consultation with those in charge. The co-operation of all mariners is earnestly requested, so that trustworthy information may be obtained for the publications referring to the Great Lakes.

W. H. H. SOUTHERLAND,  
Commander U. S. N., Hydrographer.

UNITED STATES HYDROGRAPHIC OFFICE,

WASHINGTON, D. C., July, 1902.

W. W. Stumbles, a marine engineer in the employ of the Dominion Government, has arrived in Windsor to make arrangements with M. K. Cowan, member of Parliament for South Essex, for the establishment of a life-saving station on Point Pelee. The need of the institution was pointed out by Capt. Frank Hackett, of Amherstburg, at the time of the wreck of the Maumee Valley on the middle ground in Lake Erie two years ago.

## FLOTSAM, JETSAM AND LAGAN.

James Faulos, a marine fireman, of Collingwood, Ont., was drowned in Commercial slip, near Lloyd street, on Friday last. The body was recovered.

Captain S. Murphy, one of the best known captains on the lakes, has suffered another stroke of paralysis at his home in Ashtabula. His condition is critical.

Capt. Thomas Crawford, of Wolf Island, Ont., one of the best known mariners on the Great Lakes, is dead at Chicago, whence he went recently to take charge of a steamer. A widow and three children survive.

The Navy Department is in receipt of several applications from states for the use of vessels in the summer cruises of various naval militia organizations. The Department will endeavor to do all in its power to comply with these requests.

Edward Nesbitt, formerly a Lake Carriers' Association shipping master, has been engaged by the Great Lakes Towing Co., to look over the tug strike situation and to prepare for starting tugs for the Great Lakes Towing Co. at Ashtabula, within the next few days. Manager Leonard, of the Great Lakes Towing Co., will remain also.

In the trans-Atlantic ship during the past sixty-two years the length has gone up from 215 to 706 feet, the beam from 34 feet 4 inches to 75 feet, the depth from 24 feet 4 inches to 49 feet, and the displacement from 1,731 tons to 37,700 tons; while the horse power has increased from 740 to 37,000, or about fifty times, and the speed has been trebled. As to passenger accommodation the "Britannic" of 1840 could give indifferent accommodation to only 90 passengers, the "Celtic" can carry 3,194 souls, of whom 2,850 would be passengers.

Trouble between the United States Immigration Department and the Lake Ontario Folger line of steamboats over the alleged employment of Canadian firemen in violation of the contract labor laws, have broke out afresh. Complaints have been made by firemen who claim they were shipped for a trip to the Thousand Islands and back to Ogdensburg, N. Y., and were discharged, at Clayton, to make room for Canadians imported from Kingston. The same trouble arose two years ago, and now, according to Department Inspector Estrelle, the government will push the complaint against the steamboat company vigorously.

Experiments have recently been made on the Lake of Geneva with a new apparatus for saving life at sea, invented by Prof. Probst, a native of Geneva. The apparatus consists of a diving suit of India rubber, opening in the center. It can be rapidly donned. It is so buoyant that nearly half the body remains above water. Airtight pockets on the side of the dress contain a lamp, matches, stores of food and a trumpet. The experiments were successful. Prof. Probst remained for several hours in the water. He intends to pass the whole of August in the water and will then go to Havre where he will remain fifteen days in the sea.

Until Friday the entire crew of the Ann Arbor car ferry No. 3, including the captain and everyone on board were quarantined for smallpox, and have not been allowed to leave Frankfort for two weeks. The case was discovered in a mild form on one of the deck hands. When the authorities learned of the case the boat was quarantined and the patient was placed in a tent on a high hill across the river from Frankfort. Everyone on board had to be vaccinated, the entire number being 32. The cabin boy was the only one seriously affected by the operation. His arm swelled to nearly twice its natural size. The smallpox patient had been sleeping with another man for several days, but his bed fellow escaped contracting the disease in any form.

The body of J. H. McBrier, son of James McBrier, a vessel owner of Erie, Pa., was taken from the river at Sault Ste. Marie, Sunday, by dockmen. It had been in the water forty-five days, and was badly decomposed. His identification was established by papers in the pockets of the dead man. Young McBrier had been missing from home in Erie for almost two months. His father traced him to the "Soo." There all trace of him vanished. McBrier, after coming to Sault Ste. Marie, registered at the Northern hotel, and after several days disappeared. He left his baggage at the hotel. It is said that young McBrier had for some time been employed on the steamer Sevona, which is owned by his father.

F. A. Churchman, president of the Philadelphia Tugboat Owners' Association, called on James A. Dumont, Supervising Inspector General of the Steamboat Inspection Service, at Washington, D. C., and fully explained to him the enforcement of a law or rule deemed obnoxious to tugboats holding a license on the Delaware river and bay. He further reported that it was fully established that there was no law giving United States local inspectors the right to designate the number of officers and seamen a steam tug shall carry and endorse the same on their certificates of inspection that were used for towing purposes expressly. At a later meeting of the tug owners it was decided to appeal the ruling of the Treasury Department to the Supreme Court for a final decision; also to have a bill prepared and presented to Congress to have the Revised Statutes amended and revised so as to obtain relief in this matter.





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### NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

TREASURY DEPARTMENT.  
OFFICE OF THE LIGHT-HOUSE BOARD,  
WASHINGTON, D. C., July, 9, 1902.

**RAINS DOCK GAS BUOY, No. 20.**—Notice is hereby given that, on or about July 15, 1902, a gas buoy, painted red with "Rains Dock No. 20" in white, and showing a fixed red light during periods of 10 seconds separated by eclipses of 10 seconds' duration, will be established, in 22 feet of water, in place of the red spar buoy, on the easterly edge of the cut, and about midway between Johnsons Point and Rains Island Shoal float lights, at the middle of the turn from the new cut into Dark Hole Passage, St. Marys river.

Southerly end of hotel dock, N. by E.

Rains Dock, E.N.E.

Johnsons Point, S.S.W.  $\frac{7}{8}$  W.

Bearings are true.

By order of the Light-House Board:

GEORGE C. REMEY,  
Rear-Admiral, U. S. Navy, Chairman.

LIGHT-HOUSE ESTABLISHMENT,  
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 10TH DISTRICT,  
BUFFALO, N. Y., July 12, 1902.

Notice is hereby given that on July 10, 1902, Strawberry Island Shoal Buoy, red, Second-Class Nun-Buoy, No. 14, Niagara river, was moved up stream a distance of 550 feet and placed in 15 feet of water to mark the extension of the shoal at the upper end of Strawberry Island and the head of Tonawanda channel.

On the same date a black 25-foot spar-buoy, No. 9, was established in 14 feet of water to mark the end of a shoal extending from the foot of Squaw Island, Niagara river.

There is from 16 to 17 feet of water between this buoy and the wharves.

By direction of the Light-House Board.

A. DUNLAP,  
Commander, U. S. N.,  
Inspector Tenth Light-House District.

### DOMINION OF CANADA.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

### ONTARIO.

**GEORGIAN BAY—WEST SIDE—CAPE CROKER—LIGHT AND FOG ALARM ESTABLISHED.**—A light and fog alarm established by the Government of Canada on the outer extreme of the point 1-3 mile southeastwardly from Cape Croker, will be put in operation on the 5th July, 1902.

The combined light-house and fog alarm building is a wooden structure, surmounted by a square wooden lantern, and stands 65 feet back from the water's edge. It is 25 feet high from its base to the top of the ventilator on the lantern, and is painted white. The keeper's dwelling, which stands 43 feet behind this building, is a rectangular wooden building, painted white.

The light is an occulting light, visible for 25 seconds and eclipsed for 5 seconds, alternately. It is elevated 31 feet above the water level of the Georgian bay, and should be visible 10 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order, and the illuminant a 50-candle power incandescent lamp. In the event of the electric power at any time failing temporarily, a fixed white oil light will be shown until the occulting light can again be put in operation.

In thick weather a fog horn, operated by electricity, will be sounded for 5 seconds, with silent intervals of 25 seconds, alternately, the horn sounding while the light is occulted, and the horn being silent while the light is bright.

**DETROIT RIVER—LIMEKILN CROSSING—LIGHTS ON EAST SIDE.**—The Lake Carriers' Association has placed 3 red

lights near the stakes on the east side of Limekiln Crossing. The lights will be maintained the remainder of the season.

### UNITED STATES OF AMERICA.

**LAKE ERIE—CLEVELAND—CABLE LAID BETWEEN CRIBS NOS. 2 AND 3—CAUTION.**—A telephone cable was laid on 2nd June, 1902, between cribs Nos. 2 and 3 (outer cribs), Cleveland outer harbor. Vessels are requested not to anchor between these cribs and to use vigilance when in the vicinity thereof.

**LAKE ERIE—PUT-IN-BAY APPROACH—WRECK REMOVED.** The wreck of the schooner "Barkalow," south of Rattlesnake island, in the western approach to Put-in-Bay, has been removed.

**LAKE ST. CLAIR—ST. CLAIR FLATS CANAL—LOWER ENTRANCE, EAST SIDE—GAS BUOY.**—On 7th May, 1902, a gas buoy, painted red, showing a fixed red light during periods of 10 seconds separated by eclipses of 10 seconds' duration, and marked "St. Clair Flats Canal Lower Entrance, East Side No. 24," was substituted for the former St. Clair flats canal lower entrance east side float light, on the southeasterly edge of the southerly end of the dredged channel leading into St. Clair flats canal, and about 900 feet S.  $11\frac{1}{2}$ ° E. from St. Clair flats canal lower entrance, west side gas buoy No. 21.

**RIVER ST. MARY—LAKE GEORGE—FLOAT-LIGHT.**—On 21st May, 1902, a fixed red post-lantern light was established, 12 feet above the water, on a pyramidal framework surmounting a square wooden float, moored in 12 feet water, to mark the remains of the crib of Upper Lake George light, which has been carried away.

### BRITISH SHIPPING AND TONNAGE.

The annual statement of British shipping for 1901 shows that the merchant service of Great Britain consists of 20,050 vessels of 14,607,849 gross tonnage, an increase of over half a million tons as compared with 1900. Vessels of 775,681 net tonnage were built for the British merchant fleet, and vessels of 207,452 tonnage net for foreign countries. Last year 326 vessels of 240,482 tons were sold to foreigners during the year.

The total number of British vessels entered at ports in the United Kingdom during 1901 was 315,056, comprising a tonnage of 83,800,483; 310,537 vessels cleared, representing a tonnage of 82,878,106; 36,061 foreign vessels entered, and 35,301 cleared, representing a tonnage respectively of 20,609,638 and 20,328,074.

**Limitation of Liability—Value of Stranded Vessel.**—Where a ship was stranded on a reef and so injured as to terminate her voyage, in order to secure the statutory limitation of liability, the owner, when the vessel is not surrendered, must pay her value as she lay upon the rocks, and the amount of her freight then pending, if any. Her value for such purpose is not affected by the owner or others; and where, at a great risk, hazard, and expense the owner succeeded in releasing her and having her towed to port, where she was valued, there must be deducted from such valuation, for the purpose of fixing the measure of his liability in limitation proceedings, not only the expense incurred in her rescue, but also an allowance on account of the risk and hazard of the salvage undertaking, which clearly affected her value as she lay before such operations were commenced. *Pacific Coast Co., vs. Reynolds et al., 114 Fed. Rep. (U. S.) 877.*

**COL. WILLIAM HECKERT**, of Toledo, Ohio, who has patented more than 130 devices, has invented a machine which he calls a tri-motor, a combination of steam boiler and steam and gas engines. Only crude oil and water are needed to run the machine. It does its own firing, generating first the amount of steam measure required and using the steam repeatedly, additional water being necessary only to replace leakage. The motor can be started, stopped and reversed like any steam locomotive.

### OUR MERCHANT SHIPPING.

In a pamphlet on "The Merchant Marine," William W. Bates, Esq. former Commissioner of Navigation says: "Once we were rightly started and well along in accomplishing the carriage of our own imports and exports."

"Beginning with 20 per cent. of proportionate carriage in 1789, in a few years our vessels were carrying from 80 to 90 per cent. of our exports and imports, and so continued, the culmination occurring in 1826, when the figures stood, for exports, 89.6 per cent.; for imports, 95 per cent. This was under regulations which purposely favored our own shipping for our own trade.

"A change of policy was introduced; our marine was given less preference at the custom house, when different causes quickly produce different effects. Later, a complete and radical change was effected and no preference was given. By 1861 export carriage had fallen to 72.1 per cent; import carriage to 60 per cent. By the close of the Civil War the figures were down to 26.1 and 29.9 for export and import carriage, respectively. The war was damaging, but peace showed little recuperative power. In 1870, the percentage reached 37.7 for export, and 33.1 for import carriage, but has declined since. In 1891 it stood at 6.13 for export carriage, and 11.99 for import. Once, our shipping carried 75 per cent. of our commerce with Europe. Of late, it fluctuates above and below two per cent. There are many ports in Europe, as in other parts, where an American ship is never seen, while last year the number of nations participating in our foreign trade was twenty-five, every one of them accorded the same port privileges as ourselves.

"The name for the policy under which foreign shipping has displaced our own is a misnomer—to us. How little reciprocity there is about it may thus be seen. In 1900, in the trade between our country and Europe, not one American merchant vessel went to or came from Germany, Russia, Sweden, Norway, Denmark, Holland, Italy, Austria-Hungary, Greece or Turkey. Two small American vessels came from France, one in ballast; one came from Belgium in ballast, and one cleared for Spain. There were cleared for or entered from England eleven sailing vessels, while two small steamers went in ballast. The American mail steamships, St. Louis, St. Paul and New York, made their accustomed trips, sustained by subsidy."

### NEW TYPE OF DANISH STEAMSHIPS.

A company has been formed in Copenhagen for the construction of a trial steamship of a new type. The inventor is Capt. F. C. Ishoy, who has taken out patents in the principal countries. In this new form of steamer, the screw is placed under the bottom instead of aft. The hull is materially changed in form, being flatter, and the ship's draft thereby considerably lessened. It is claimed that a saving in the consumption of coal of about 20 per cent. will be effected. The inventor believes that with the same amount of fuel the speed will be greatly increased, and, finally, that this form of craft will be much steadier and more seaworthy.

### LATEST MARINE PATENTS.

704,000.—Life-Preserver. George B. Conley, Cleveland, Ohio.

704,155.—Mooring Ships. William M. Walters, Liverpool, England.

704,186.—Boat Propelling Device.—Frank J. Gleason, Vanwert, Ohio.

704,231.—Hydraulic Dredge. Lindon W. Bates, Chicago, Ill.

704,362.—Bulk Cargo Vessel. Joseph R. Oldham, Cleveland, Ohio.

704,477.—Paddle-Wheel. Frank Exline, Geddes, S. D., assignor, by direct and mesne assignments, to Vertical Propeller Co., same place.

704,478.—Paddle-Wheel. Frank Exline, Geddes, S. D., assignor, by direct and mesne assignments, to Vertical Propeller Co., same place.



## HOW HOLLOW SHAFTS ARE FORGED.

There are two ways of making a forging hollow. The ordinary way of getting rid of the center of a forging is simply to bore it out. After boring, it is tempered, and thus the strength is restored which was taken away with the material which was in the center.

Another way of getting rid of the center of large forgings is to forge them hollow. A person who has not considered the subject carefully would naturally think that the first thing to do in making a hollow forging would be to cast a hollow ingot. It has been mentioned that there are various defects which occur in ingots, the most serious of which are "segregation" and "piping," and that it is in the center and upper portion where those defects occur. If an ingot were to be cast hollow a solid core of fire-brick or similar material would replace the center metal, and instead of one on the outside there would be two cooling surfaces, one on the outside and one around the core, and the position of last cooling would be transferred to an annular ring midway between these surfaces where the "piping" and the "segregation" would collect. This would not be satisfactory, because the metal there is what must be depended upon for the strength of the hollow forging. It is necessary, therefore, to collect the "piping" and "segregation" in the center and at the top, where metal has been added to the original ingot for the purpose.

Then, having cut off the top and bored out the center, the "piping" and "segregation" are entirely eliminated and what is left is as sound and homogeneous a piece of steel as can be obtained.

After the hole has been bored in the ingot, the next process is to reheat it, and, as before explained, this process is not as delicate a one as if the ingot were solid. The heat affects the center equally with the exterior and the two expand together and the danger of cracking is not incurred. When the ingot is reheated a steel mandrel is put through its hollow center, and subjecting the two to hydraulic pressure, the metal is forced down and out over the mandrel. Thus an internal anvil is practically inserted into the forging and there is, therefore, really much less than one-half the amount of metal to work on than if the piece were solid.

When the work of shaping is complete the forging is reheated to the proper temperature, and then either annealed in the usual manner or plunged into a tempering bath of oil or brine, to set the fine grain permanently that has been established by the reheating. A mild annealing follows to relieve any surface or other strains that may have been occasioned by the rapid cooling.

Hollow forgings, oil tempered, and annealed, are considered the best grade of forgings made, and any forgings made otherwise, although they may be suitable for the service to which they may be applied, cannot be looked upon in any other manner than as that of an inferior grade.—H. F. P. Porter, of the Bethlehem Steel Co.

State Statutes—Constitutionality.—State statutes giving liens on ships for necessary repairs or supplies furnished on the credit of the vessel, which are enforceable by process in rem, in a court of admiralty, as arising under maritime contracts, cannot be classed as laws intended to impose burdens upon interstate or foreign commerce, and for that reason held unconstitutional, though applied to foreign ships, but their purpose and effect, like liens given by the general maritime law, are to facilitate commerce by enabling the ship to obtain the things necessary to the prosecution and completion of her voyage. The Robert Dollar, 115 Fed. Rep. (U. S.) 218.

## JAMES SPENCE ROBERTSON.

If JAMES SPENCE ROBERTSON belonging to Dundee, Scotland, who was, it is believed, about 1889 in Tawas City, Michigan, U. S., and who was, it is understood, latterly, acting as a Steward on a Lake Steamer running out of Bay City, Michigan, U. S., will communicate with the Subscribers, he will learn something to his advantage.

REID, JOHNSTON & Co.,  
34 Reform St., Solicitors.  
Dundee, Scotland.

## TREASURY DECISIONS.

Allotment of wages.  
TREASURY DEPARTMENT, BUREAU OF NAVIGATION,  
WASHINGTON, D. C., July 3, 1902.

To collectors of customs, shipping commissioners, and others:

The Department circular No. 17 (February 8, 1899, relating to allotments of seamen's wages, is amended by adding thereto the following:

7½. But the allotment to an original creditor under any of the preceding paragraphs shall not exceed twenty-five dollars, nor shall it exceed the amount authorized in the paragraph applicable to any particular case.

E. T. CHAMBERLAIN, Commissioner.

Approved:

M. E. AILES, Acting Secretary of the Treasury.

## Shipments of seamen.

Services in shipping seamen on yachts will not be included in the accounts of shipping commissioners.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION,  
WASHINGTON, D. C., July 1, 1902.

U. S. SHIPPING COMMISSIONER, Philadelphia, Pa.:

SIR: This office is in receipt of your letter, dated the 30th ultimo, inquiring whether you should take credit in your accounts for services rendered by you in supervising the shipment of seamen on the steam yacht Josephine, the charge in the case amounting to \$30.

The act of June 7, 1872, authorizing the appointment of shipping commissioners, stated in its caption that it was an act authorizing the appointment of shipping commissioners "to superintend the shipping and discharge of seamen engaged in merchant ships belonging to the United States, and for the further protection of seamen." The Bureau understands that it has not been the practice generally to apply the provisions of the act to shipments of seamen on yachts. Thus on March 1, 1887, it was held by the Bureau that the yacht Alva, bound to Bermuda, was not engaged in trade between the United States and the West Indies within the meaning of section 2, act of June 19, 1885, and that no charge for shipments on the vessel should be made by the shipping commissioner at New York. In a circular letter addressed by the State Department to consular officers it was stated that it had been held that the provisions of law relating to the shipment of seamen do not apply to yachts, but that shipping commissioners have been permitted to allow the shipment of seamen on such vessels before them if requested to do so by the private persons concerned (T. D. 18439).

In view of the practice which seems to have obtained regarding the matter, and of the fact that the laws do not plainly authorize the charge you mention, the Bureau concludes that you should not take credit therefor in your accounts.

Respectfully,

E. T. CHAMBERLAIN, Commissioner.

Approved:

H. A. TAYLOR, Assistant Secretary of the Treasury.

## Boiler Plate Shearings.

Boiler-plate shearings dutiable at \$4 per ton as scrap steel fit only for remanufacture:

TREASURY DEPARTMENT, July 5, 1902.

SIRS The Department is in receipt of a report of the United States attorney for the Southern district of New York, in which he states that the case of United States vs. A. Milne & Co., was recently decided in the United States circuit court for that district adversely to the Government.

The merchandise in suit consisted of certain so-called "scrap steel," which was returned by the appraiser as steel boiler-plate shearings and assessed for duty as steel in all shapes, not specially provided for, at the rate of four-tenths of 1 cent per pound under paragraph 135 of the tariff act of July 24, 1897. The importers protested, claiming the merchandise to be dutiable at the rate of \$4 per ton under the provisions for scrap steel in paragraph 122 of the same act, which claim has been sustained by the United States circuit court in this case, the court finding that the merchandise was in fact scrap steel fit only for remanufacture, thereby affirming the decision of the Board of United States General Appraisers (G. A. 4825 of December 11, 1900; T. D. 22673).

The Attorney-General advises the Department that no further proceedings will be directed in this case. You are therefore hereby authorized to forward the usual certified statement for refund of the duties exacted in excess in settlement thereof.

Respectfully,

M. E. AILES,  
Assistant Secretary.

73391

Collector of Customs, New York, N. Y.

## NOTES.

IN THE presence of an enthusiastic crowd, the keel of the battleship Nebraska was laid in Moran Brothers & Co.'s ship yards, at Seattle, Wash., July 4. Governor Savage, of Nebraska, and Governor Henry McBride, of Washington, driving the first rivet. When this task had been completed, a representative of the company proceeded to pay off the distinguished workmen for their work. To each of the Governors he gave a check for three cents. With each of the checks was a voucher, which the recipients were required to sign.

THE pipes in the plant of the Tesla Laboratory, Wardencliff, Long Island, N. Y., were recently covered by the H. W. Johns-Manville Co. Mr. Tesla writes: "I have watched this work with interest and am well satisfied with the manner in which it has been done. The covering used in this instance is the well-known Asbestos-Sponge Felted Sectional pipe covering, constructed of fibres of asbestos and a small quantity of granulated sponge, thus combining the familiar properties of asbestos with the lightness and porosity of sponge, the result being a wonderful insulator."

ALL CONTRACTS made hereafter for transportation of merchandise from European Russia to Siberia and intermediate ports will contain a clause that such goods must be conveyed on ships flying the Russian flag. This refers mainly to naval supplies, but the Ministry of Finance has perfected arrangements for the shipping of Russian products to the Far East. On May 1, 1902, the entire maritime coast, from Posiet to the Behring Sea will be closed to foreign ships by imperial decree. This will seriously affect the coal interests of Sakhalin. At least twenty-four ships yearly are now necessary to bring the coal cargoes required for Vladivostok from Sakhalin.

PROFESSOR CROCKER tells us that the part played by Lord Kelvin in connection with the laying of the Atlantic cable is undoubtedly his strongest claim to high rank in the history of science and engineering. He possesses a two-fold mental make-up which was clearly exhibited in his work in connection with the cable. His mathematical knowledge and ability is of the very highest order, and it is, strangely enough, combined with the greatest amount of common sense and practical faculties. He not only has carried on scientific research in abstruse and abstract fields, but he is also a man who can "do things." He has accomplished practical results from the application of scientific discoveries. Among his many achievements may be mentioned his reflecting galvanometer, ampere balance, electrometers, siphon recorder, marine compass and deep-sea sounding apparatus. His ideas and methods are original. He always views any subject distinctly from his own standpoint, and without prejudice.

HON. EUGENE T. CHAMBERLAIN, U. S. Commissioner of Navigation, in Leslie's Weekly:—The influence of Great Britain in shaping the world's history and growth—an influence entirely out of proportion to her population and natural resources, has radiated through her merchant shipping. Through it the English language and Anglo-Saxon ideals and methods have pervaded the world. We have only lately come to the last chapter in the history of an earlier dominion over the world which Spain held by virtue of her navigators and her ships. "Our future lies on the sea," the watchword of the Kaiser, tersely expresses the laudable ambition of Germany to attain leadership among nations. It is not an unworthy ambition to aspire to be the most powerful nation in the world, the most pervasive influence in shaping mankind's future. It is a proper ambition for Americans to entertain at the beginning of the twentieth century.



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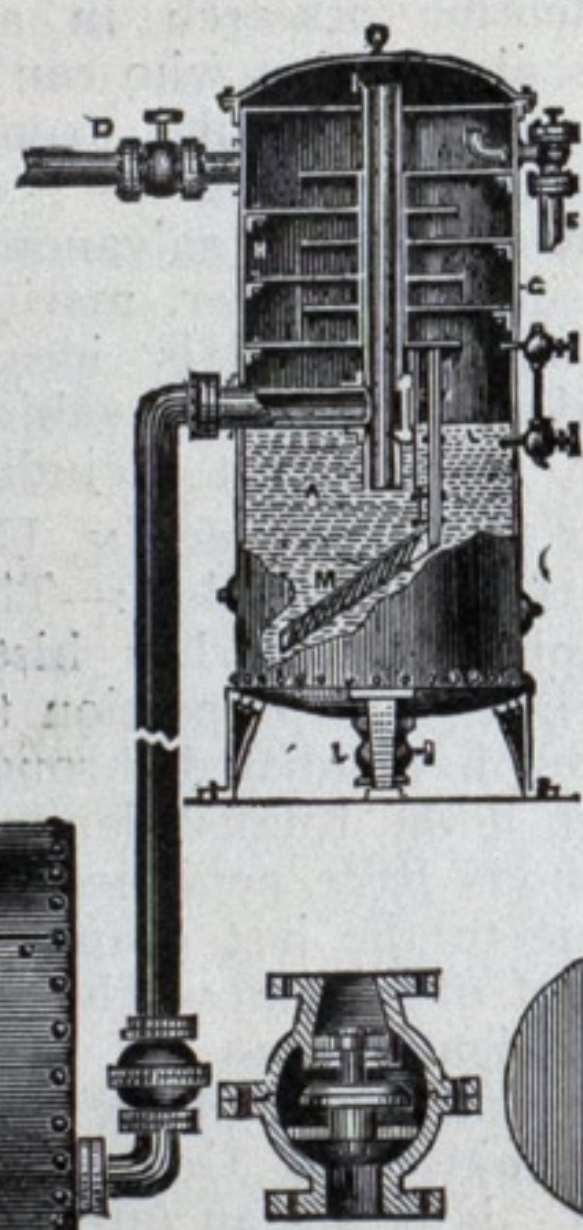
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The Republic Iron Co.'s steamers America,  
Brazil, Thomas Maytham and Chili.

Mitchell Transportation Co.'s steamer  
Hendrick S. Holden.

Minnesota Iron Co.'s steamer Presque Isle.  
American Steel Barge Co.'s steamer Alex.  
McDougall.

Lake Michigan & Lake Superior Trans-  
portation Co.'s steamer Manitou.

Bessemer Steamship Co.'s steamers S. F.  
B. Morse and Douglas Houghton.

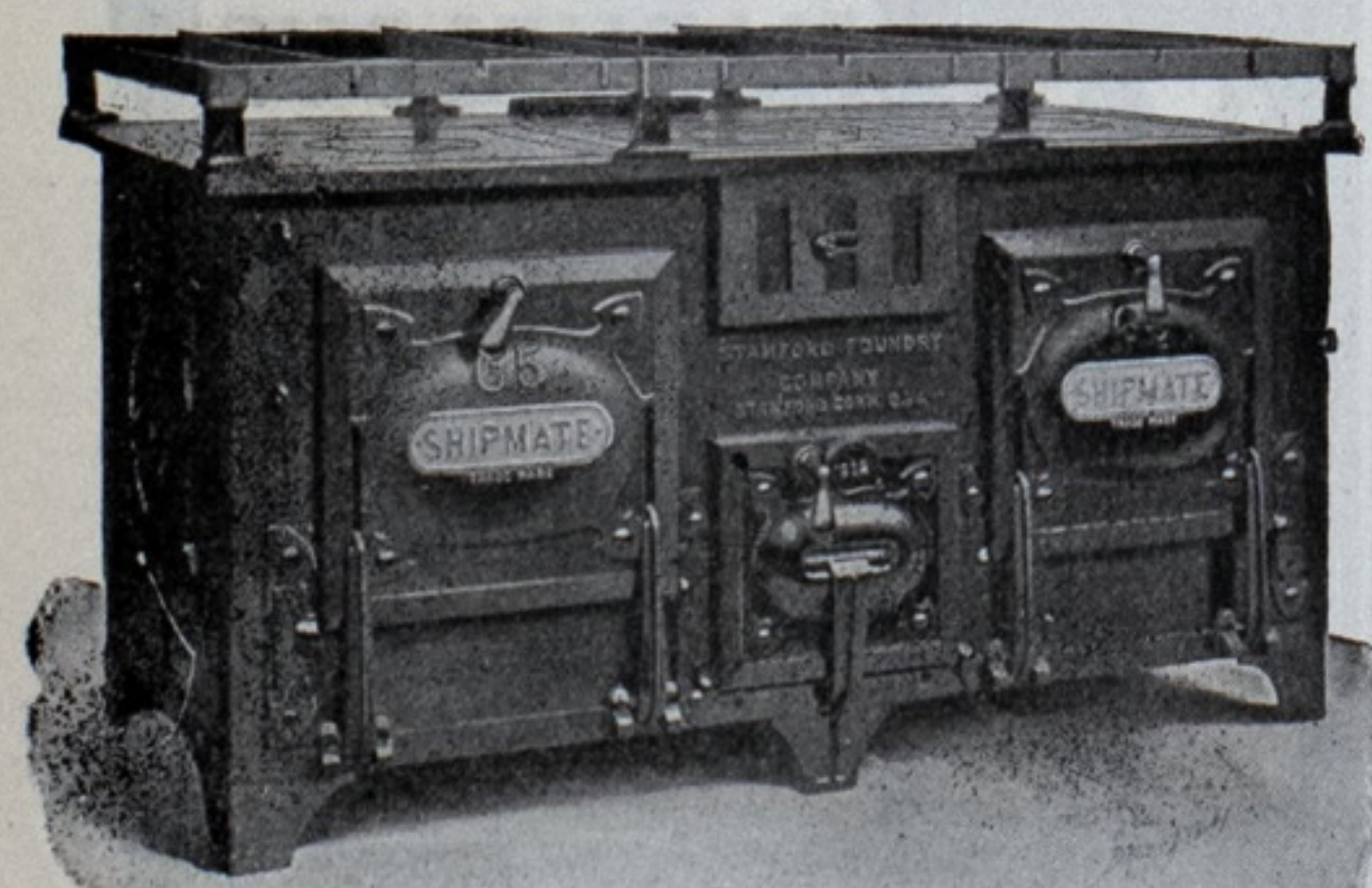
American Transportation Co.'s steamers  
John Harper and Alex. Nimick.

Red Star Line's steamers Robert Mills and  
Wyoming.

Wilson Transit Line's steamers W. D. Rees  
and Andrew Carnegie.

And the steamer William R. Linn.

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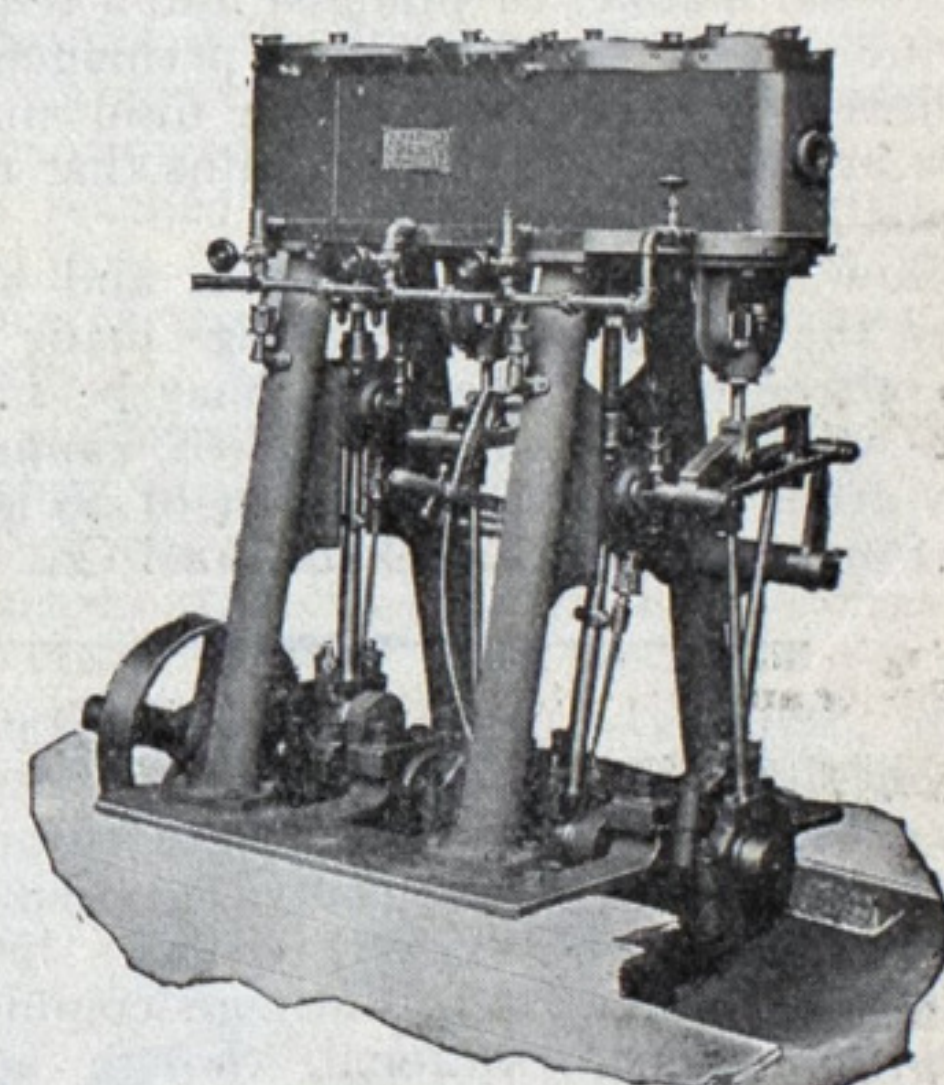


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**TUGBOATMEN RETAIN THEIR LICENSES.**

INSPECTORS AT BUFFALO DISMISS CHARGES.—NO GROUNDS ON WHICH TO CANCEL LICENSES.

"In view of these facts we decide that the charges preferred are not sustained by the evidence and the same are hereby dismissed."

This is the decision handed down this week by Frederick L. R. Pope and Joseph G. Schumacher, United States local inspectors of steam vessels in the action brought against members of the Licensed Tugmen's Association, by the Great Lakes Towing Co., growing out of the tugmen's strike at Buffalo and other lake ports.

Testimony in this action was taken in the inspectors' office in the Federal Building at different times and also at up-lake ports, and much interest has been felt by marine men in the outcome as no similar case has ever been brought to the consideration of the inspectors of the Great Lakes.

After a careful review of the testimony taken in the investigation of the charges preferred by James Ash, president of the Hand & Johnson tug line of Buffalo, N. Y., against Harley H. Vroman, Joseph M. Green, Albert McMinn, James Gray, James Doyle, Joseph Lawson, J. F. Whelan, Charles Smith, Thomas Higgins, James Hason, William E. House and John Farrell, duly licensed pilots, and Fred Ferguson, Joseph T. Whelan, John Doyle, Henry Bullard, Robert Mason, James Reilly, James Byers, John O'Connor, William J. Miltner, O. J. Rolo, William J. Whelan, and Thomas V. O'Connor, duly licensed engineers, for entering into a combination and conspiracy without good and sufficient reason in law, and for wrongfully and unreasonably refusing to serve in their official capacity, as authorized by the terms of their certificates of license, to the hindrance of commerce, and in violation of Section 4,449, Revised States of the United States.

We find that all the officers named therein, having given satisfactory evidence of their experience and ability, and having taken an oath that they would faithfully and honestly, according to their best skill and judgment, without concealment or reservation, perform all the duties required of them as pilots and engineers by the laws of the United States, had issued to them by the United States local inspectors of steamboats, licenses certifying that they were skillful pilots and competent engineers, and could be entrusted to perform duties as such for a term specified in said licenses.

The evidence shows that these men were employed in the capacity for which they were licensed on steamers

owned and controlled by the Hand & Johnson tug line or the Great Lakes Towing Co.; that on the morning of April 26, 1902, the local manager G. H. Vroman, acting under instructions from the general managers, notified said licensed officers to get their boats in shape to be laid up; that he would have to pay them all off that evening. In compliance with this order, all steamers navigated by these men were laid up at the time specified.

It does not appear from the evidence that said pilots and engineers have violated their oaths, or any of the steamboat inspection laws, while acting under the authority of their licenses; nor does it appear that they were negligent, incompetent or guilty of misconduct while in the discharge of their duties; or that they refused in any way to perform the duties required of them by the terms of their certificates of licenses while in the employ of said company.

In view of these facts, we decide that the charges preferred are not sustained by the evidence, and the same are hereby dismissed.

**GRAIN FREIGHT RATES FROM NEW YORK.**

The prevailing charter rates from New York on full cargoes of grain during May, 1901 and 1902, for steam tonnage were as follows:

To Cork, f. o., 2s. 1½d. to 2s. 3d., compared with 2s. 6d. to 2s. 9d. in 1901; to the United Kingdom and Continent, p. p., 1s. 7½d., compared with 2s. to 2s. 2½d. in 1901; to Hamburg (no rate given in 1902), 2s. 1½d. to 2s. 3d. in 1901. Rates are quoted per ton except when otherwise specified. A minimum freight rate of 1½d. per bushel of 60 pounds on grain, and 10s. per ton of 2,240 pounds on provisions, was signed on January 31, 1902, by the representatives of the various steamship lines between this country and London and Liverpool.

**FOR SALE.**

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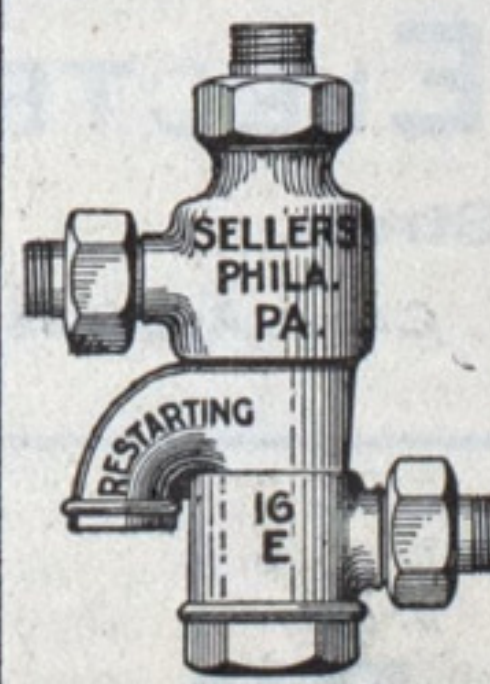
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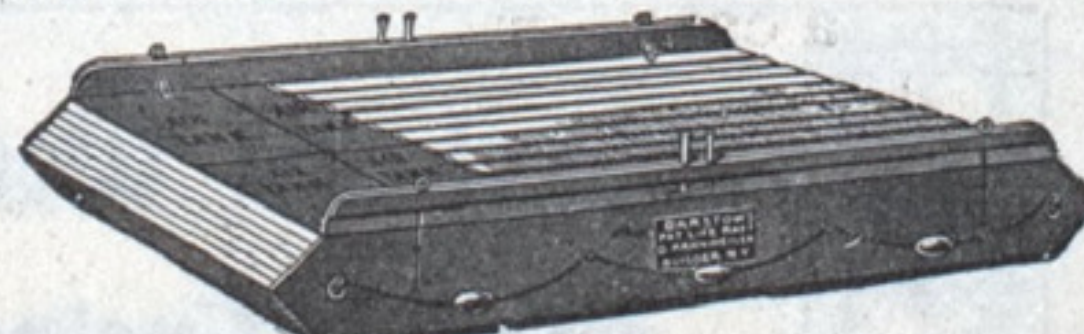
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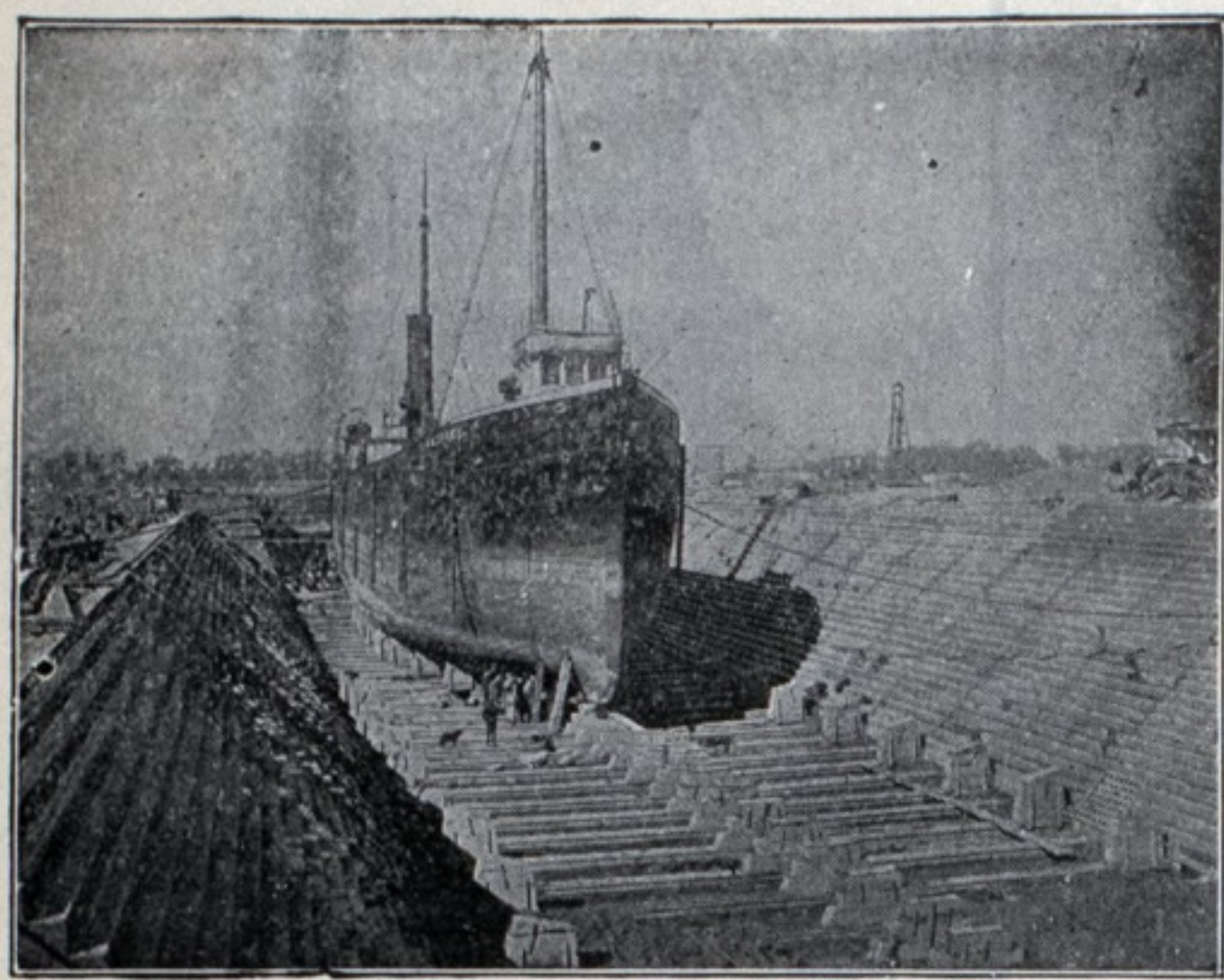
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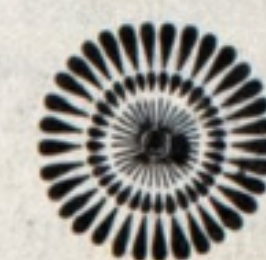
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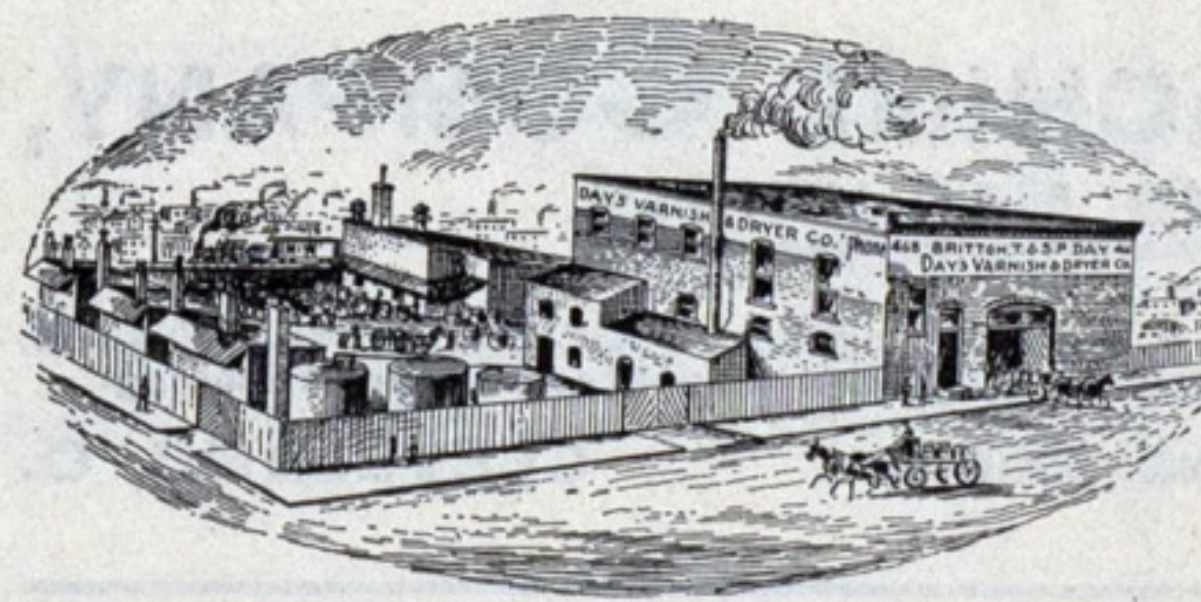
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